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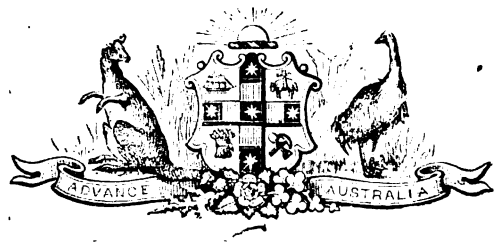

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EDITED BY JOHN ILIFFE.

A MONTHLY REVIEW OF DENTAL SCIENCE.

The Journal Representative of the Dental Profession, and Published solely in its interests throughout the Commonwealth of Australia.

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AND

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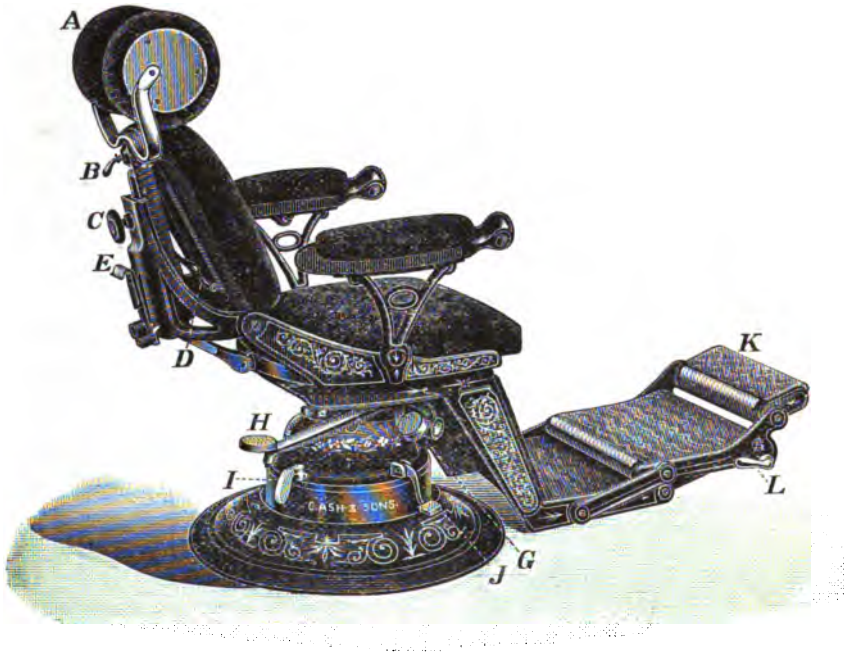

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THE AUSTRALIAN
JOURNAL OF DENTISTRY.

VOL. 9.] JANUARY 31, 1905. [No. 1.

EDITORIAL.

At the last meeting of the Dental Board of Victoria, held on Friday, 27th inst., the gratifying news was received of the recognition by the General Medical Council of the United Kingdom of the Board's licence to practice (the L.D.S. Diploma of Victoria), as entitling the holder to registration on the colonial list of the Dentists' Register of Great Britain.

The General Medical Council appear to have given very careful consideration to the whole matter, and the result, while reflecting much credit to ourselves, has been arrived at by the Council imposing three conditions to be observed, not only by the Dental Board of Victoria, but by the applicants for registration themselves as well (see report of the meeting on the Board page).

The conditions thus imposed are not difficult for any one to comply with, and are such as any reasonable man or body of men would deem necessary for the safe-guarding of the interests of all students who have graduated under a thoroughly efficient curriculum and after passing a searching examination.

There can be no doubt that the recent action which the Board took in inviting the assistance and co-operation of the University authorities—the happy result being the affiliation of the Dental Board, the University and the Australian College of Dentistry—together with the bringing up of the requirements of the Victorian curriculum to the standard demanded from dental students in the United Kingdom, has exercised a decided influence on the members of the General Medical Council in arriving at so important and satisfactory a conclusion.

We venture to express the opinion that the dental profession in the State of Victoria has had conferred upon it a great honour, as well as a great trust. For it is the first recognition of an organised dental education which has been granted to any Colonial dependency of the Empire. This being the case, the great trust which the conditions impose upon us must be honourably fulfilled in every way. We are quite sure that both the Dental Board, as well as the Dental Faculty, are keenly alive to their several responsibilities. It goes without saying that a body of gentlemen who have for some years devoted considerable time and thought to the gradual development and uplifting of the Victorian curriculum, will not abate one jot or tittle of their energies in this direction, but will carry out their work in the same honourable manner in which the conditions and terms of the recognition have been granted.

We congratulate the members of the Board upon the successful issue of their endeavours. If virtue is its own reward, then those members who have so long and earnestly striven to gain this recognition should reap their reward ungrudgingly by virtue of the success which has crowned their work.

Our friends and subscribers will no doubt express some gratification at the "new departure" which takes place with this issue of the "Journal." Let us say, once and for all, the Council of the College—who are the proprietors—never contemplated or desired "to run" the "Journal" for any pecuniary profit to themselves or for the College. In this matter the Council's position is not unique. A very brief consideration of, and an enquiry into, the position of almost every dental journal published in any country reveals the simple fact that these journals are published either by Associations of Dentists, or owned by the large firms of manufacturers and distributors of dental supplies; and with how much the more or less successful results to themselves individually we are not in a position to say.

Among the various projects and organisations entered into by dentists in other countries outside Australia, "Dental Journalism," for nearly three-quarters of a century, has proved itself a very essential and necessary factor in the dissemination of all matters con-

ducive to the development and progress of the dental profession. And, young as we are as a "Journal," we can fairly and faithfully say that "The Australian Journal of Dentistry" has fulfilled no small part in this direction in Australia.

In these so-called progressive days, therefore, the Council—with the hope of reaching a far wider circle of readers and subscribers—have, in their wisdom, decided to reduce the annual subscription to one half of the previously existing rates, viz., from 10s. 6d. to 5s. per annum, post free throughout Australia. And in order to try and prevent confusion in the minds of many, the "Journal" year has, by the same authority, been altered from the date of its commencement—August to July (inclusive)—to January to December (also inclusive), and in so doing we follow the Calendar. Necessarily we thus close Volume VIII., a brief five months from August to December, 1904. The records—how important they are who shall estimate? With this January issue we commence Volume IX., No. 1, 1905

DENTAL BOARD OF VICTORIA.

ORDINARY monthly meeting of the Board, held on Friday evening, the 27th day of January, 1905, at the Board's Offices, 454 Collins Street, Melbourne.

The chair was occupied by the President (Dr. Springthorpe), and there were also present Dr. Mullen, Mr. A. R. Clarke, Mr. John Iliffe, Dr. A. P. Merrill, D.D.S., Mr. Donald M'Gregor, and Mr. W. Witt, J.P.

REGISTRATION OF DENTISTS.

Thos. Sealey, of 140 Dank Street, Albert Park, and P. H. Trood, of Warragul, applied for registration as dentists. They had both passed the "*sine curriculo*" examination, and complied with the law. Applications approved.

REGISTRATION OF A "VESTED RIGHTS" STUDENT.

Charles William Mathers applied for registration as a student entitled to enter for the "*sine curriculo*" examination. He appeared in person, and gave evidence on oath in corroboration of his sworn

declaration that he had complied with the provisions of the law entitling him to the benefits of Section 10, Act 1595. The Board, after hearing the evidence, decided to admit the applicant to the "*sine curriculo*" examination.

Registration of Articles of Apprenticeship.

Minnie May Belcher, to Francis Belcher, four years; O. L. C. Bayer, to Melsom Hemmens, three years; Hugh Wright, to T. R. Jones, four years; B. E. H. Vernon, to M. M. Miller, four years; R. D. M'Callum, to J. M. D'Amer-Drew, four years. Indentures approved by the Board, and copies filed.

Transfer of Indenture.

The transfer of the articles of apprenticeship of Edward Toynbee Stevens from Mr. Hector Tause to the College was approved, and copy of transfer filed with the Board.

Removal from the Register.

A number of dentists had been written to, enquiring whether they had changed their address, and advising them that if no answer were returned to the letter within a period of six months the Board might cause their names to be removed from the Dentists' Register. This action was taken under the provisions of Section 6 of the Dentists' Act 1898, and the Board directed the Registrar, by virtue of the powers entrusted to it under this Section, to remove the names of forty-eight (48) Dentists from the Register.

Examinations.

The arrangements were completed for holding the supplementary L.D.S. and preliminary examinations in February, the examinations to commence the 14th of February, 1905.

The Faculty of Dentistry.

The Registrar reported that he had received a letter from the Registrar of the University stating that the following gentlemen were appointed members of the Faculty of Dentistry for 1905, viz.—Professor Allen, Professor Osborne, Dr. Barrett and Dr. Mollison, and that he had been appointed by the Council to be Secretary of the Faculty for the year 1905.

REGISTRATION OF THE L.D.S., VICTORIA, BY THE GENERAL MEDICAL COUNCIL OF THE UNITED KINGDOM.

The following letter was read from the Registrar of the General Medical Council of Great Britain, and was received by the Board with great gratification.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM.

299 Oxford Street, London, W.,
1st December, 1904.

No 14,720.

The President Dental Board of Victoria, Melbourne.

Dear Sir,—I have to inform you that the application of your Board for the recognition of your license by this Council, as entitling to registration on the Colonial List of the Dentists' Register, has received very careful consideration. Enclosed is a copy of the Report of the Council's Dental Education and Examination Committee on the subject. I have now to state that the license has been recognised, subject to the following conditions :—

1. "That recognition be accorded only to those licenses which are granted to students who have passed through the entire curriculum.

2. "That the recognition be during the continuance of the agreement between the Dental Doard and the University of Melbourne, and that notice of any alteration in this arrangement should be immediately forwarded to the General Medical Council.

3. "That, like the Licensing Bodies in the United Kingdom, the Victorian Licensing Body furnish complete returns of all of its Examinations."

And I have to request that all applicants for registration may be furnished by your Board with sufficient evidence to show that these conditions have been complied with.

Yours faithfully,

H. E. ALLEN, Registrar.

The President said that the day was a red-letter day in the annals of the Board. He believed that their diploma was the first to receive such recognition outside Great Britain. All concerned could be warmly felicitated upon such a splendid result to their labours.

The letter to the General Medical Council, which had secured the recognition of the L.D.S. Diploma, and which had been drafted by the President (Dr. Springthorpe), will be found in another portion of this issue, together with the Report of the Dental Educational and Examination Committee. The Board, in thanking the President, had already placed on the minutes its gratitude to him for the comprehensive and very able manner in which he had stated the case on behalf of the Board. The President pointed out that it would be well to write the General Medical Council *re* inspection and estimation of the value of the training given by the Board. The President was authorised to write accordingly.

The President also referred to the valuable service that Dr. Merrill had rendered when recently in London, and as a definite motion to that effect had not hitherto appeared in the minutes, he moved that the thanks of the Board be given to him for the eminently satisfactory and successful manner in which he had there represented it at the General Medical Council. Mr. Clarke seconded the motion, which was carried unanimously. Dr. Merrill suitably replied.

The Board adjourned.

E. Joske, Registrar.

APPLICATION OF THE DENTAL BOARD OF VICTORIA FOR REGISTRATION BY THE GENERAL MEDICAL COUNCIL.

The President and Members, General Council of Medical Education and Registration of the United Kingdom, London, W., England.

Gentlemen,—By direction of the Dental Board of Victoria, I beg to re-apply for recognition of the Licentiate of Dental Surgery of Victoria under the following new conditions :—

1. By regulation gazetted August 14th, 1904 (copy appended), our dental students must henceforward during nine months of their fourth year attend the medical and surgical practice of a general hospital recognised by the University of Melbourne. This removes what the "Lancet" of June 11th, 1904, reported that your committee regarded as "the important exception" to our otherwise fairly satisfactory fulfilment of your requirements.

2. By agreement with the University (papers appended) our curriculum, with certain other amendments, has been recognised by the

Faculty of Medicine, Professorial Board, and Council of the University as qualifying for the degree of Bachelor of Dental Surgery in the University of Melbourne. The final ratification of this recognition by the Senate of the University (which under the circumstances is purely formal) will be communicated to you by cable prior to your meeting.

The amendments which have been introduced are as follows:—

(*a*) As heretofore the portal to the curriculum will be Matriculation (with Arithmetic, English, Latin, and Physics as compulsory subjects) or the preliminary examination before the Board. But as only these students who matriculate can obtain the B.D.S. Melbourne on the otherwise same curriculum, it is expected that few, if any, intending students will call upon the Board to institute such examination (as the Board is by law obliged to hold), and, if any do, the Board has undertaken to the University that its Examiners shall be the same and its then standard at least equal to that of Matriculation.

(*b*) Henceforward, Physiology, Pathology, Medicine, and Oral Surgery, in addition to Anatomy, Dissections, Practical Histology and Bacteriology (as in the past), must be attended in the Medical School, and not in the Australian College of Dentistry; and all lecturers therein become demonstrators or clinical teachers in the Medical School, with the use of the University laboratories. (The College of Pharmacy, in which it remains optional for dental students to attend the courses of Chemistry, theoretical and practical, is recognised by the University for that purpose, just as it has been recognised for medical students for Materia Medica and Pharmacy.)

(*c*) Henceforward the Australian College of Dentistry is affiliated to the University of Melbourne. Both it and the Dental Hospital of Melbourne are open to University inspection, and all lecturers, examiners, and teaching staff concerned in the curriculum are elected by the Council of the University, upon the recommendation of the newly instituted Faculty of Dentistry. With this explanation I beg to append our present curriculum, details of subjects, names and qualifications of teaching staff, description of laboratories, operations, and class rooms in our College, and returns of work done in our Dental Hospital during the last twelve months.

In connection therewith the Board desires to offer the following observations :—

1. The position of Physics is transitional. It is intended to re-model it, add some equivalent to (*c*) of the Honour Matriculation standard, and make it a subject of the first year, so soon as the University establishes a suitable course.

2. In addition to the yearly requirements of the curriculum students have either (*a*) a three years' apprenticeship, during which they may acquire a practical familiarity with the details of mechanical dentistry under a registered dentist, or (*b*) a four years' apprenticeship in the mechanical department of the Australian College of Dentistry under the direction of the superintendent.

3. To prevent any misconception as to the scope of our course of dissections, it has been specifically arranged that the course must include dissections of the upper extremity, as well as that of the head and neck.

4. The Board has adapted the policy of differentiating the courses of general study from similar courses in our Medical curriculum, and of specialising them for Dental students for the following reasons :—

(*a*) The requirements differ naturally in both degree and kind.

(*b*) Our Medical standards are University and not Collegiate in scope and severity, and the Board has seen no sufficient reason to require our higher Medical standards from its average Dental students.

(*c*) Similar specialisation is not only the growing tendency in Dentistry elsewhere, but in our own Medical school, steps are being taken to similarly specialise the Medical Physics, Biology, and Chemistry from the existing Science course in those subjects.

(*d*) Further, such commingling of training tends to create a class of practitioners apt to regard themselves as Medical, and under our special conditions, specially likely to practise as such in country districts in competition with duly qualified Medical practitioners.

In the opinion of the Board, the real question is the sufficiency of the requirements, and after very careful consideration and investigation, the Board has come to the conclusion that its present requirements in these directions are sufficient for the thoroughly efficient training of

its students, and, under the present altered conditions, its decision has now received the confirmation of the Faculty of Medicine, the Professorial Board, and the Council of the University of Melbourne.

5. No admission *ad eundem statum vel gradum* has been or will be made by the Board unless and until the applicant has satisfied the Board that he or she has fulfilled a curriculum in all other points equivalent to that of the L.D.S. Victoria.

6. As regards the Dental Hospital, the Government has, pursuant on its affiliation with the University, offered the Australian College of Dentistry a site for a new hospital. The College has in hand some £3,000 for building purposes, and in place of the present rented building, which is structurally ill-suited, it is proposed to forthwith erect a thoroughly up-to-date and well-equipped institution, with all necessary scientific and clinical facilities.

It is under these more favourable circumstances that the Board renews its application for recognition and registration of its Licentiate of Dental Surgery. Although situated at the antipodes and surrounded with numerous disabilities, the Board has, from the inception of the Amended Dental Act in 1898, required a four years' course of study, and has always placed before itself a high professional standard. It has created a curriculum, a college, a hospital, and a body of students recognised by the University of Melbourne as worthy of a degree in Dentistry in that distinguished University. And it now seeks at the hands of the Imperial authority that Imperial recognition which it has striven so hard to deserve.

I have the honour to be, gentlemen,

Your most obedient and humble servant,

J. W. Springthorpe, M.A., M.D., *President.*

Appendices.

1. *Government Gazette* of the 24th of August, 1904, giving on page 2708 the amended dental regulations.

2. Letters from the Registrar of the University of Melbourne.

3. Regulations of the 18th of December, 1903, and 22nd July, 1904, governing the curriculum for the diploma of Licentiate of Dental Surgery of Victoria.

4. The curriculum for the diploma of L.D.S. Victoria.

5. Excerpts (*a*) from the Calender of the University of Melbourne (1904), giving details of (*a*) Matriculation, (*b*) Chemistry, Part I.

6. Details of subjects.

7. The executive lecturers, teaching staff, etc., of the College and Hospital.

8. Report of the Superintendent of the College and Hospital as to the work done in the College and Hospital.

9. The *Australian Journal of Dentistry* for August 31st, 1904, giving on pages 4 to 13 the last annual report of the College, and on page 6 record of operations at the Hospital for the year ending the 30th of June, 1904.

DENTAL BOARD OF VICTORIA.

The Lancet, December 10th, 1904.

The report by the Dental Education and Examination Committee on an application from the Dental Board of Victoria for the recognition of its diploma was entered on the minutes. In this report it was stated that:—

In the year 1898 two gentlemen who had obtained the licence of the Dental Board of Victoria applied to be registered in the Colonial List, tendering papers in support of their application which appeared to show that they had passed through a curriculum which was considered by the Council to be roughly the equivalent of that required by the licensing bodies in Great Britain, and on this ground their application was granted. Shortly afterwards a communication was received from the Dental Board of Victoria pointing out that at the time when these gentlemen were examined, and their licences granted, the regulations which they had submitted in support of their application were not in force; and that, in fact, at that date no curriculum whatever was in force, so that their admission to examination was no proof of their having passed through one. No imputation of bad faith lay upon these gentlemen, who appear to have been unaware of the change which had taken place since they commenced their course of study. But, in fact, the Dental Board had been told on high legal authority that they had acted *ultra vires* in establishing a curriculum under the Colonial Act of 1887. Though not relevant to the present issue, it may be mentioned that they were asked for the production of full evidence as to their curriculum, which has never been completely furnished. In 1899, under a new Colonial Act giving the requisite

authority, a fresh curriculum was established, and in the following year the Dental Board of Victoria applied that their licence might be registered in this country. Acting upon a report of the Dental Education and Examination Committee, the Council refused to accede to this application, on the ground that the new curriculum was deficient in general subjects, though adequate in the special subjects; and that it was intended to teach an outline of medicine and surgery, etc., at the special school without attendance at any general hospital being required. Sundry criticisms were also offered on the rules governing the examinations. In February, 1904, the Dental Board again brought out a fresh series of regulations, which were submitted to the Council in May, 1904. On that occasion Mr. Merrill, a member of the Dental Board of Victoria, met the Dental Education and Examination Committee, and explained certain difficulties under which they laboured in the colony, at the same time expressing willingness to bring their requirements, if possible, into harmony with those in force at home; but the committee did not recommend the recognition of the licence as it then stood, and the Council adopted their report. On Mr. Merrill's return to Australia it would appear that action was speedily taken, with the result that once again the curriculum required has been modified, and their application for recognition of the licence is now renewed.

The alterations made are very considerable, and may be summarised as consisting in a much closer affiliation with the University of Melbourne and in the introduction of a period of attendance at a general hospital. The University of Melbourne institutes a Dental Faculty and a degree to be called Bachelor of Dental Surgery. The Dental Board agrees that the Dental College shall become a school of the University, and that it and the Dental Hospital shall be open to the inspection of the University authority; that the examiners appointed for the Board's licence shall be the same as those appointed by the University for its degree; and that the lecturers, demonstrators, etc., of the Dental College shall be appointed subject to the approval of the Dental Faculty of the University. Moreover, that no change shall be made in the requirements of the Board for its licence without the approval of the University. Thus the University of Melbourne, a body whose medical degrees are recognised for registration in this country, has rendered itself to a very large extent responsible for the

action of the Dental Board, of the College, and of the Dental Hospital, a site for which it has granted. This arrangement, however, though apparently agreed upon by both parties, had not passed into the form of a statute, but since the Council has been sitting a telegram has been received stating that it has been ratified by the Senate. It is terminable at any time by mutual consent or by a year's notice on either side.

As regards the curriculum, the difference in principle which led to the rejection of the previous applications—namely, the absence of any courses at a general hospital—has disappeared, but it remains to consider whether the amount of general study introduced is sufficient to be regarded as, generally speaking, the equivalent of our own. The period of attendance upon general hospital practice is nine months, whereas—to take, for example, the most recent regulations of the English College of Surgeons—for its licence in dental surgery two winter sessions are required here. Without exact and detailed correspondence in other respects the curricula are similar. The student in Victoria is required to pass four examinations, one at the end of each year, but a feature which was the subject of adverse comment on a previous occasion still remains—namely, a supplementary examination, to be held not less than six weeks after the principal examination, at which a student who has failed may present himself for re-examination in a single subject if he has only failed in one subject, but in all subjects if he has failed in more than one subject. It is obvious that a student who has failed in several subjects cannot within so short a period have done much to strengthen his weak points.

The requirements of the Board as to preliminary examination appear to be satisfactory, and the committee recognise that an effort has been made to bring the curriculum into conformity with that obtaining here. The committee, after considering the facts set out above, recommend that the Licence of the Dental Board of Victoria be recognised, subject to the following conditions :—That recognition be accorded only to those licences which are granted to students who have passed through the entire curriculum. That the recognition be during the continuance of the agreement between the Dental Board and the University of Melbourne, and that notice of any alteration in this arrangement should be immediately forwarded to the General Medical Council. That, like the licensing bodies in the United

Kingdom, the Victorian licensing body furnish complete returns of all of its examinations. And the committee would remark that, inasmuch as the examinations of the licensing bodies in Great Britain have been inspected by the General Medical Council, and are always liable to such inspection, which is impossible in the case of a distant colony, the General Medical Council will only be able to judge of the "sufficiency" of the examinations by the proportion of passes and rejections, which may be fairly expected not to differ greatly from the proportion which an experience of twenty-five years has shown to obtain at the examinations of the several licensing bodies of Great Britain.

Mr. Tomes moved that the recommendation of the committee be adopted.

Dr. Lindsay Steven seconded the motion, which was agreed to.

AN AUSTRALIAN'S IDEAS ON AMERICAN DENTAL EDUCATION.

A. R. BAIN, M.A.C.D., D.D.S.

In considering the system of American Dental Education, one may take the plan of instructions followed by the Department of Dentistry in the University of Pennsylvania as affording the most apposite example for the purpose of illustration; it being perhaps the most cosmopolitan of American Colleges, attracting on its merits students from all parts of the world (of the 3000 odd students attending the University, 403 are in the Dental Department, and of these 90 are foreigners). The course of instruction covers a period of three years, and is so far-reaching and comprehensive that apprenticeship is deemed unnecessary. Throughout the course the student is imbued with the fact that he is there to work, for he is kept hard pressed by the formidable list of requirements for each year.

By a ruling of the National Association of Dental Faculties, the course of instruction for the degree of D.D.S. was lately increased to four years, but owing to the lack of unison amongst the colleges the four year course has now been abandoned, and a return made to the three year system. In a letter recently received from the Dean of this University, he expresses regret at this decision, and

states that the Faculty would endeavour to use its influence for the lengthening of the course to what it considers necessary for the thorough training of a dentist for his life's work, and to this end the University has established a special optional Fourth Year course. With regard to matriculation, a uniform examination is not demanded of the student, as it is in the Universities of Australia. A diploma of an approved high school, having a three years' course, is deemed sufficient, or, in lieu of this, the applicant is required to pass a matriculate examination comprising the following subjects :—English (including a fairly comprehensive knowledge of the works of the best English authors), Latin, American History, General History, Mathematics (Algebra and Plane Geometry), and Physics or Chemistry. During the first year of session the Freshman is required to attend lectures, and pass examinations, upon the following branches :—Chemistry, Anatomy (including dissections), Histology (including laboratory work), Osteology, Operative and Prosthetic Technics, and Prosthetic Dentistry.

The students in each year are divided off into small sections, with a special demonstrator for each section. This method facilitates the work of the instructors and ensures the individual progress of each man—an obviously necessary arrangement when so many students are to be trained. The various sections commence duties at 9 in the morning, and it is useless for a belated student to seek admission to his section after the opening hour. The American student, however, does not want much keeping up to his work. He knows how to hustle. It's born in him, and he just can't help it. The student is drafted from section to section. Each hour of the day is mapped out for him, and he soon drops into a regular routine. He has his hour for lunch, then back again to duty, until a final lecture from 5 to 6 ends his day. Saturday he works till 12 o'clock, and, that he may not escape early, a lecture is delivered from 12 till 1. During the first year a student does no clinical work—all his time is devoted to work "out of the mouth." He has teeth to carve and fashion in clay, various kinds of fillings to do, and all manner of work on extracted teeth, besides vulcanite cases to make to models, etc. It is not until the second year of his course that he is permitted to enter the sanctum of the Clinic, and the freshman who wittingly or unwittingly finds himself in the

operating room of the Second Year class will be forced to beat a hasty and unceremonious retreat. The filling of extracted teeth with tin foil is largely practised during the first year, so that, later on, the student may become proficient in his future gold work in the mouth. Every filling is, of course, critically examined, and if up up to standard, passed by the demonstrator in charge, and then placed to the credit of the student. Each year of the course is practically one long examination, and this system must be regarded as most commendable. At the commencement of each year a requirement card is allotted each student, bearing his name and number on the register. Upon this card are enumerated, under their respective headings, the work each student has to fulfil during the year. Each requirement, as it is completed, is duly initialled by the demonstrator.

Before the student is eligible for examination at the end of his year, it is necessary that his card be handed in to the office, with the respective requirements fully completed. The amount of work allotted is so exacting that it necessitates the student's steady application throughout his year in order to fulfil all the requirements necessary for admission to the terminal examination.

The Sophomore, or Second Year man, attends lectures on Materia Medica, Physiology, Bacteriology, including laboratory work, Applied Anatomy, Operative and Prosthetic Dentistry, Metallurgy, Dental Pathology and Therapeutics, Clinical Dentistry, Oral Surgery.

The plan of instruction has been so arranged that those subjects common to the professions of medicine and dentistry are taught concurrently, the dental student attending at the medical school the same lectures as his confrere.

This association upon a basis of equality with the students of other departments of the University must have an undoubted bearing upon the status of the future dental practitioner, and so develop mutual respect and recognition.

The strong point in the second year course appears to be the excellent training in Practical Bacteriology ; and a thorough knowledge of the practical bearing of bacterial life processes on dental pathology must commend itself to every intelligent practitioner.

A well-equipped laboratory of hygiene, including microscopes for the use of students, affords every facility for the study of this subject. Every attention is given to the study of saliva and oral bacteria, and one ventures to suggest that practical bacteriology would be a wise addition to our course here.

Lectures in Anatomy are illustrated by fresh dissections of the human body, and in the study of the subject valuable aid is obtained by visiting the University Museum, where magnificent coloured wax models of dissected parts can be seen. A student may frequently be found there, book in hand and model before him, working up his "part" before he attempts to dissect it.

During the second year the student commences practice in the Clinic, where he has every requisite necessary to aid him in good work. One hundred Wilkison chairs with fountain spittoons are awaiting his patients. Here again, as in technical work, he is allotted to a section with an instructor to look after his every want. All his spare time (which doesn't amount to over much during his second year) is spent in the Clinic gaining experience. He still has lots of technical work to do, including a full upper single gum section vulcanite plate, full upper and partial lower metal plates, crowns, bridges and regulating appliances, etc., all of which are done to models, the abutments used for crown and bridge work being the stumps of extracted teeth. He gets a demonstration in each step of the work, and then retires to his special section to try his hand at it under supervision.

The third year of the course is devoted entirely to Dental Subjects, viz., Operative Dentistry, Prosthetic Dentistry, Dental Metallurgy, Dental Pathology and Therapeutics, Clinical Dentistry, Oral Surgery and Anæsthetics. The dental requirements throughout this year are very exacting, and mean that a man must not waste any time if he wishes to complete his card and so be eligible for examination. Amongst the requirements are 60 foil fillings, all of which must be examined and passed by the demonstrator. Twelve of these, however, are called graduating fillings, and must be handed in to the examiner, who rates the student according to the merit of his work. In addition porcelain inlays, root-canal, cement, and amalgam fillings, the treatment of pathological conditions, all receive their due attention. Crowns and bridges are to be inserted in the mouth ; three special bridges must be constructed a continuous gum bridge ; removable saddle bridge and a fixed self-cleansing bridge. Amongst the prosthetic requirements may be mentioned a full upper metal plate with soldered suction and single gum section teeth, full upper and lower vulcanite plates, metal interdental splint, obturator, etc.

The lectures of most interest to an Australian student are those on Clinical Dentistry. This subject seems to hold an intermediate position between Dental Pathology and Operative Dentistry. It embraces both subjects, yet it is more than either, and deals largely with the "reason why" such pathological changes take place, and the "reason why" such and such treatment is employed. The lectures teach the student to think out for himself the why and wherefore of clinical treatment.

Every student knows that a bleaching agent is used to bleach a discoloured tooth, but the lectures on Clinical Dentistry teach him a trifle beyond. He is informed that different discolourations are due to different chemical reactions, and consequently each requires its special chemical reagent to obtain the best result. Again, in erosion, for instance, lectures are delivered, and the student by this means ascertains the causes producing the disease, and that various chemical reactions take place in the blood, and then in the saliva, producing an erosion, which is simply the manifestation of a long train of pathological conditions, and must be treated accordingly. This subject of Clinical Dentistry is one that should commend itself to those responsible for our Dental course in Melbourne. Another distinct advance is in the subject of porcelain inlay work, which is now so largely practised in America. The University gives special lectures and demonstrations on this subject, for it has justly earned its right to a prominent position in conservative dentistry. One of the features of the Prosthetic course is a large show-case erected in the centre of the laboratory. This case contains specimens of every requirement for each year. A dozen or more specimens would be shown of a full upper metal denture, each in its successive stage, until the final one shows the case polished ready for the mouth. These specimens are a great aid to the student, as he can see at a glance each step in the progress of the work which he has to execute.

Every possible assistance is at hand for the student—compressed air for his blowpipe, electric current for his lathe, and, if he wish it, for his dental engine also, fountain spittoons for his chair, and everywhere demonstrators at his beck and call. The student has the privilege also of attending, free of charge, lectures upon kindred subjects in other departments. The course ends with a big clinic given by the alumni of the department on the day previous to graduation. The most distinguisned practitioners among the alumni of previous years are invited to give clinics on their respective specialities, and thus the final day of the session affords a fitting climax to a course embracing every requisite for a scientific and practical knowledge of dentistry. One recalls here, with a perfect sense of the eternal fitness of things, the trite aphorism of old Virgil, "Haec olim meminisse juvabit." Such, then, in the rough, is an outline of the system of dental education and training provided in the curriculum of a great American University, and we may cherish the hope that in the strenuous years to come this will be more than rivalled by the nascent Dental Department of our own Melbourne University.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

The monthly meeting of the Board was held on Monday evening, December 19th, at the Board Room, 7 Richmond Terrace, Domain, Sydney.

The President, Mr. C. G. Hodgson, took the chair at 8 o'clock, there being also present Dr. Peach, Dr. Kirkland, Dr. Palmer, Messrs. C. Hall and C. C. Marshall.

The minutes of previous meeting were read and confirmed.

The bank pass book was examined and found correct, and accounts passed for payment.

The following applicants for registration were present, duly examined and registered:—Alexander Charles Johnston, West Maitland; Donald Hattersley, Mudgee.

The application of William F. Cox was refused.

The application of E. H. West was postponed for proof of Preceptor's right to registration in this State.

The Regulations for Examinations were duly discussed, alterations made, and a final adjustment ordered for next meeting.

The papers of the Victorian Dental Board examinations were received, and thanks expressed to the Registrar (Mr. Joske) for his courtesy in the matter.

Correspondence was dealt with, letters mostly being requests for infomation re Examinations.

The Registrar reported the death of a registered dentist of this State, Charles Bailey. His name was removed from Register. A letter of condolence was directed to be forwarded to Mrs. Bailey.

The matter of a dentist named Lane (not registered) being sentenced for stealing was dealt with, and the Registrar directed to report to the press that Lane was not registered by this Board.

The motion standing in the name of Mr. Hall, "That it is advisable to publish the voting which took place at the last meeting of this Board in the matter of the appointment of Examiners," was moved by Mr. Hall and seconded by Dr. Peach, and, after discussion, put to the meeting and lost.

The matter of the administering of oaths was again before the Board, it being Solicitor's opinion that, under Section 17 of Act, the Board could examine any person on oath for the purposes of this Act. The President will in future administer the oath.

Notice of Motion was given by Dr. Peach : "That in order that the fullest information may be available for the guidance of this Board in its efforts to advance the status of the dental profession of this State by the proposal of an amended enactment. It is moved that the Registrar be instructed to officially request the executive officer of every Dental Board throughout the world to supply copies of their Dental Act or Acts or of proposed amendments, copies of such by-laws, together with such reports, examination papers, or other matters relating to their procedure as may be available.

Meeting closed at 10.55 p.m.

HORACE TAYLOR, Registrar.

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1 Lyons Terrace,
Liverpool Street, Sydney,
Jan. 23rd, 1905.

MY DEAR ILIFFE,—Please accept my sincere thanks for your courtesy and kindness *re* the Journal.

I want to take this opportunity of tendering my hearty congratulations for the very proud position achieved in the recognition from the Home authorities of your College. There cannot be the slightest doubt that it must add considerably to its status and elevating it in the eyes of foes as well as friends. With kind regards,

Yours sincerely,

A. BURNE.

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

The 118th Monthly Meeting of the Board was held in Furnival Chambers, Perth, on 6th January, 1905, and there were present Dr. Astles (President), Dr. A. J. Bennett, Dr. Earle Newton, Dr. F. M. Wilkinson and Mr. A. J. Wright.

The minutes of the previous meeting were read and confirmed.

AN APPLICATION FOR REGISTRATION was received from Edward Charles Drake under Section 2 of the Amending Act 1899, and who submitted Diploma of Doctor of Dental Surgery of the University of Pennsylvania, and license to practise dentistry from the State of Pennsylvania. The application was refused, as the applicant was not eligible under the Act.

THE PRELIMINARY EXAMINATION.—Mr. C. A. H. McKenzie was declared to have passed the Preliminary Examination.

BREACH OF ACT.--The Registrar reported that C. Deague had been prosecuted for a breach of the Act at Norseman, and had been fined £1, with £1 0s. 6d. costs.

UNIVERSITY OF MELBOURNE.—It was decided to request the Dental Council of the University of Melbourne to permit registered apprentices of registered dentists in this State to undergo the University course.

CORRESPONDENCE was received from M. A. Acraman, Ralph Potts, the Police, James & Darbyshire, and John Iliffe.

FINANCE.—The Registrar laid on the table certificate of bank balance and the cash book, and accounts were passed for payment.

JURY LIST.—The Registrar was instructed to again write the Crown Law Department with a view to dentists being exempted from service on juries.

F. M. SYME, Registrar.

SOUTH AUSTRALIA.

"THE DENTISTS' ACT AMENDMENT ACT 1904" OF SOUTH AUSTRALIA.

The following Clauses of the Act will be read with interest:—

9. From and after the passing of this Act no person other than a person registered under this Act, and no company other than a company that has complied and continues to comply with the provisions of Section 12 relating to companies, shall have attached to or exhibited at his place of business or residence, or take or use in any advertisement, or on any handbill, letter-paper, or billhead the name or title "dentist," "dental surgeon," "surgeon dentist," "mechanical dentist," or "dental practitioner," either in the singular or plural, and either alone or in combination with any term or description implying that he is qualified to practise; nor shall any person use the word "dental" or any similar word, or any word implying that dental operations are performed or carried on by a company, society, institute, school, college, or other plurality of persons, unless he is so practising at the passing of and is registered under this Act: penalty, not less than Five Pounds nor more than Fifty Pounds. Any person, whether registered or not, who uses the letters "R.D.S." as an addition to his name-plate or sign, or in any advertisement, handbill or other public notice published by him, or who uses either as an addition to his name-plate or sign, or in any advertisement, handbill, or other public notice published by him, any title, description, words, or letters to which he is not properly entitled, or who in any other manner falsely claims to hold a degree, licence, certificate, membership, or other title, status, or document which is recognised by the Board as entitling the holder to registration under this Act, shall on conviction be liable to a penalty of not less than Five Pounds and not exceeding Fifty Pounds.

11. No registered dentist shall in any advertisement, poster, or other public notice hold out an unregistered person as being, or use words implying that such unregistered person is, a partner or

assistant of such registered person, or shall permit any unregistered person to perform any dental operation which has been entrusted to or is in charge of such registered dentist unless under his immediate supervision, or, in the case of a company, under the immediate supervision of a registered dentist operating for such company. Penalty, not less than Five Pounds and not exceeding Twenty Pounds.

We publish the following letter and paper without prejudice to our correspondent in any way :—

Caius Chambers, 8 North Terrace, Adelaide.
Jan. 25th, 1905.

(The Editor, "Australian Journal of Dentistry.")

Dear Sir,—I am sending you a paper on the "Peck System of Porcelain Inlays" for insertion in your journal. If you are not accepting articles now I shall regard it as a favour to have this one returned to me.—I am, yours faithfully,

W. T. SHANASY.

THE "PECK" SYSTEM OF PORCELAIN INLAYS.

BY W. T. SHANASY, D.D.S., ADELAIDE.

It is a well known fact that young men entering the profession a few years ago, did so through the pernicious and unsatisfactory apprentice system ; and were, for the most part, relegated to the laboratory to work out their own salvation as wielders of plaster and rubber—red, pink, and black—with an occasional opportunity to help their preceptors prepare a gold plate.

Thus they become dentists ; and in rare instances only were they taught to regard dentistry as a profession bestowing benefits upon mankind equal to the parent profession of medicine. It is no wonder that some remained in the old groove, though happily others struggled to better things.

This latter class of practitioners now pretty well form the backbone of the profession in this country ; and we say all honour to their perseverance in pushing on and becoming possessed of a fair working knowledge generally of anatomy, physiology, and the possible pathology of the human machine. With this it goes without saying that the intensely practical procedures, such as correct cavity formation, and the filling of the same with gold or amalgam, root-filling, the technic of crown and bridge work, with the rest of them, have, in a few instances, been brought up to a wonderfully good state of thoroughness.

We all know that the mastery of any new branch of work is due to individual effort and painstaking experimentation. Previous knowledge and experience in mastering other things gives any practitioner a great handicap in applying himself to new processes

and the adoption of anything out of the ordinary. It is, therefore, safe to say that in taking in porcelain work men do not start off the same mark. Porcelain work, and indeed any other kind of work, will make slow headway with us so long as things exist as they are. At present every man constitutes a dental profession in himself. He knows not his neighbour, nor cares what he is doing. Never sees him operate, nor is he aware of his methods. In America this state of things does not exist. Time must surely change it here. Already there is mooted an Australian Dental Congress. If that becomes a fact, the best workers from the Australian States will be present to clinic and demonstrate the best methods in all classes of work. Papers will be read upon subjects of vital importance to the profession, and current topics of interest will be discussed. Those who are privileged to be present will come away imbued with the enormous possibility and benefits derivable from such meetings. Thus the formation of local dental societies will follow, and the monthly meetings, with the annual great meeting with its clinics and demonstrations will be an established fact. The rapid dissemination of knowledge and methods, and the stimulation of every dentist to do better and more advanced services for his patients must be the result, the professional status raised considerably, and the deplorable wholesale extraction which is now going merrily on in the offices of those who ought to do better, will gradually receive its death-blow, as the old-fashioned men "go away back and sit down." With this somewhat lengthy and irrelevant introduction it is intended to say to those who have not as yet tried porcelain inlays, that this class of work is now acknowledged as one of the dental surgeon's daily operations, and that the sooner we all get after it the better. While it is not the intention of the writer to proclaim a "balm in Gilead" on the porcelain proposition, nevertheless it is believed that any intelligent dentist can follow Dr. Peck's instructions and produce an inlay in a simple labial cavity. Practice will enable him to do compound restorations. An inlay produced by this method is undoubtedly the best fitting inlay possible. About eighteen months ago Dr. A. E. Peck came to San Francisco and demonstrated his system to a special class of fifteen of the leading practitioners of that city. Every day for a whole week the class worked. This is mentioned to show how ready American dentists are to leave their offices to acquire fresh knowledge. They met in the Infirmary of the University of California (vacation time). The writer's presence in the class was due to several members of the University staff who were taking the course.

As before stated, it took quite a week to get into the general routine of the work and produce inlays to fit the various cavity preparations made in teeth out of the mouth ; and it would take a man on his own longer than that to acquire a general working knowledge of it. It does not admit of slipshod work ; every step must be correctly performed before the next is taken up.

An inlay of this kind cannot be turned out at small expense, though we Australians must be contented with something less than our American friends readily get in this and other directions. This is said advisedly, with power to withdraw the statement when the profession shall have risen up as one man in condemnation of wholesale extraction and the rubber plate, and shall teach our people the far-reaching benefits of a superior dental service, and the necessity for a fair recompense for the same. The 96 page book contains magnificent half-tone pictures of the various demonstrations in cavity formation, the underlying principles being the abolition of undercuts and the absence of the level edge to the enamel. Porcelain must never overhang the cavity margins nor run out to a feather edge.

Another principle is the extension for retention. It is noted that the extension for prevention will take care of itself, or should very easily do so, in inlay work. Extension for retention is another feature, and means more cutting back, with its usual concomitant and reason for the inlay success—usually recurrence of decay is rendered more remote.

THE IMPRESSION.

With the patient seated in the chair, and the cavity prepared, Britton's cement is mixed and worked up with French chalk and the impression taken. Ordinarily this will not stick to the cavity, and the first attempt may result in the impression being successfully taken. This impression is then imbedded in cement of another colour in order to make it sufficiently strong to withstand swaying, then placed in a die-cup that fits the swayer, when it is ready for the platinum foil.

THE MATRIX

There is a great argument in favour of a swaged matrix, whether of gold or platinum. In this system the matrix is always swaged over the cement impression. There is not much tearing of the platinum foil except in very hard cavities. No care need be taken to prevent the foil from wrinkling, for it must be remembered that it is not burnished into, but is exterior to the model of the cavity, and what the swager does not thoroughly flatten down can be burnished out afterwards. If low fusing bodies are to be used the gold matrix can be fortified with cohesive pellets, and any tearing of the matrix attended to. There is no anxiety about the matrix altering form after swaging, because the investment is poured upon it as it lies upon the cement impression of the cavity.

The underlying principles of the work are thus seen to be a cement impression and a swaged matrix. There is no burnishing into the cavity. By the latter method the inlay is too small for the cavity by the thickness of the foil used. By the impression method the inlay should be an exact fit of the cavity. To speak lightly of taking the impression of a cavity with cement might convey the idea that such a step is quite an easy thing. It is by no means easy. On the contrary, it is perhaps the most difficult thing

the inlay worker will meet with, and he may often be tempted to reform his cavity, resulting in a considerably larger orifice than the floor of the said cavity.

COLOUR.

The colour proposition is taken care of by using a tooth that has been already baked, and its colour thus fixed. To get the colour required a high fusing tooth is chosen, which should be a shade lighter than the inlay is to be. It is important to reject the basal colours of the tooth, oherwise, when all is powdered up and mixed, the resultant inlay must be much darker than the original tooth. The chosen tooth is placed in the iron mortar supplied with the outfit and powdered up ; or, a better and cleaner way is to hold the tooth in the flame until quite hot, then drop it into cold water, transfer to a Wedgewood mortar, when it can be easily powdered, and there is no need to run the magnet through it to remove particles of iron which always chip off of the iron mortar. The writer is experimenting with the Ash tooth for this work, the results being very promising. The Ash teeth are high fusing, the heat required being 2264 deg. F., while that of S. S. White's teeth are said to be 2516 deg. F. Much less time is required in the furnace, due to the finely ground state of the Ash tooth, and the infusible material being held in suspension in the alkaline flux.

Foundation colours can, of course, be laid in the bottom of the matrix, and lighter colours for the final bake. This greatly favours translucency. Satisfactory results are, however, obtained by using the powderd tooth that was originally a little lighter than the required inlay.

SHRINKAGE.

The porcelain worker soon finds that great allowance must be made for the shrinkage of all porcelain bodies, it being about one-sixth of their bulk. There is perhaps less shrinkage in rebaking a tooth that has already been baked. To control this shrinkage it is necessary to bake an inlay at least three times.

The edges of the matrix, which extend outside the actual cavity margins, are clipped all around at distances of one eighth of an inch, and every other flap turned up. When the investment is poured upon the matrix as it lies upon the impression of the cavity, these turned up edges become firmly embedded in it, and prevent warping and change of form of the matrix. For the first bake a very thin coating of the ground tooth body is painted inside the invested matrix evenly, and then given a thorough glaze in the furnace. There can be but very little shrinkage in this thin coating. In the second the matrix is filled up nearly, but the heat is cut off fifteen seconds sooner than for the first, and the same for the third bake, the idea being not to disturb previous bakes.

BAKING.

No definite directions can be laid down for baking porcelain, for the reason that the bodies of the different manufacturers fuse at

different heat points, furnaces differ, electrical currents vary in different cities. So that success depends upon the experience of the operator. Those who have baked continuous gums know how essential it is to keep the eye upon the piece throughout, and the same with porcelain crowns. Dr. Goslee never times the fusing of porcelain, having acquired great skill with the eye. In the inlay proposition it is found to be essentially useful and necessary to be able to time the work. For this purpose the fusing point of gold is taken advantage of. Gold melts at 2012 deg. F. (Hodgen's Metallurgy), and at that temperature high fusing bodies are not far from beginning to fuse. When the gold melts and rolls up into a ball, the furnace must be watched and the time noted.

Just here one must remember never to place gold upon the floor of the oven, for if, by any means, the molten gold gets through into the platinum wires, an alloy will be formed with the two metals and a burn out occur. So that the pellet or scrap of gold should be placed upon a depression on the fire-clay carrier.

Another important point in this connection is to place the same sized piece of gold in the same place in the furnace every time, the reason being that the furnace does not carry the same heat in every part of it. Then experimental bakes should be made, and the time required to glaze them noted. About four minutes is the time required to fuse White's teeth after the gold melts.

CEMENTATION

cannot be lightly passed over on account of the shadow problem. The inlay so exactly fits the cavity, and so small an amount of cement is required, that a white cement can be used for all inlays, as it gives a minimum of shadow, and this, together with the fact that a porcelain a shade lighter than required was started out with, enables the operator to fight the shadow difficulty to a nicety.

For further information on this system the reader is referred to Dr. Peck's own article in "Cosmos," November, 1904, where a more detailed account of his work is given.

The writer does not desire to be understood as being over-enthusiastic in recommending all to get the Peck system. It is an accurate system, it is true, and if the work is to be done alone it is also a time-consuming method, and will take quite a bit of worrying out from the directions. The outfit is quite expensive considering what there is to it, and as a few of us know, outfits have a peculiar way of nearly doubling in value ere they reach us in Australia. This is mentioned because nobody would be more sorry for a disappointed brother to say he got the inspiration from the author's paper. Nevertheless, should any get the outfit, and get "up against it" in any particular, or otherwise desire more light upon the subject, any knowledge possessed by the writer will be gladly given.

THE NECESSITY OF DENTAL EXAMINATIONS IN SCHOOLS.

READ AT THE ANNUAL MEETING AT ABERDEEN, AUGUST 8, 1904,
BY ALFRED MACLEOD, LECTURER ON ELOCUTION,
ABERDEEN UNIVERSITY.

Mr. President, Ladies and Gentlemen,—I appreciate the honour you have done me in asking me to lay before you some of the facts that a specialist in vocal training must of necessity observe and note. I appreciate even more highly your recognition of the value of the practical study of elocution in its relation to the science and art of dentistry.

In the limited time at my disposal I desire to allude to only a few considerations that occur most frequently to one whose work lies in the cultivation of the mental processes which evolve right speech.

Failure in expressive utterance is, in the main, due to defects in the proper use of the mind in its relation to speech : but a considerable share of the failure is more or less traceable to defects in or to faulty action of the vocal organs.

Everyone knows the disagreeable lisp caused by dental defects or from badly formed or ill fitting artificial palates, yet many persons seem meekly to resign themselves to a condition that need not and does not exist when scientific dentistry has been employed. I should like here, in passing, to emphasise the fact that, so far as speech is concerned, a skilfully constructed palate and teeth far excel in effectiveness the average natural palate and teeth. The blame of imperfect utterance does not lie so frequently to the charge of the dentist as it does to the lazy, careless, or ignorant use of the new instrument with which the patient has been furnished. Frequently he continues to use the tongue in the imperfect way demanded by his imperfect natural apparatus, instead of voluntarily adapting it to the improved conditions which the skill of the dentist has effected.

Numerous as are the instances of adults articulating badly from dental causes, in the case of school-children it is, perhaps, even more widespread and certainly more deplorable. The child never complains, never knows of dental defects, is entirely ignorant when its speech is abnormal, and is taken to the dentist only when pain becomes unbearable. Speaking generally, one may say quite definitely that in few instances is a child of our Board Schools ever examined by a dentist until too late. The child does not know him as the preventer of pain, but as the demon that inflicts it.

Why should this be so ?

It is folly to say that the duty lies upon parents to see that the children be properly treated. That is admitted, but the parents themselves are entirely ignorant of the preventive offices of dentistry, and they conceive of a dentist as " one who pulls out teeth."

In an inquiry into the vocal defects of school-children which I made several years ago on ten thousand children of the Aberdeen

School Board's schools (the result of which was published in the American magazine "Voice," and discussed there), several facts bearing on the present subject emerged.

It was noticed that the number of children with perfect teeth was surprisingly small, while the number with very imperfect teeth was alarmingly great. The inquiry, however, was not the general one as to the physical conditions of school-children which has since then been made, and which confirms in every way the observations then made. My investigation was as to the number and extent of vocal impediments among school-children, and their dental condition was therefore noted and classified in the extreme cases where the impediment was due entirely or chiefly to dental or palatal causes.

Permit me here to quote a sentence or two from that report :—

"In the upper standards—about 500 children—there were twenty (4 per cent.) whose teeth and palates prevented the proper adjustment for speech. There were sixteen cases where the tonsils, soft palate, uvula, or tongue was in such a condition as to render perfect speech impossible. In nearly all these cases the aid of a skilled dentist and surgeon was urgently required.

* * * * *

"As evidenced by the number of defective articulations the most difficult letters are "r," "s" and "l." There were 43 failures in "r," 41 failures in "s," 30 failures in "l." All the other consonants had in all 39 failures. The defect in "r" would have been much greater if slight burring had not been excluded."

Allow me to explain here that Southern English phoneticians declare that no trace of the letter "r" remains in modern English educated speech in such words as "father" and "farther"; that the trilled "r" of the North of England and particularly of Scotland does not now exist, that a faint buzz is all that now remains in the words "true," "try," &c. But in Scotland any failure to trill the "r" must be classed as a defect.

In the production of perfect articulation the office of the dentist is quite distinct from that of the orthœpist. Dentistry ensures a perfect apparatus, but the proper use thereof must be the work of the teacher. No doubt in many cases the perfection of the instrument at once secures right speech without any guidance or instruction; but this is not always so.

Frequently I have met with vocal defects where there seemed (to my unprofessional eye) no dental or palatal defect. Yet in most of these cases the teacher or parent suspected there was "something wrong with the mouth." Take, for example, some of the most frequent faults of the consonant, and it is difficult to believe that the speaker has a perfect apparatus :—

(1) Vibration on both sides of the tongue from contraction of the latera apertures, as in

"The little lad is well."
z)(buzz)(buzz) (buzz)

(2) The tongue point dipped towards the bed of the jaw, causing the rounded back to rise into the palatal arch, as

"The little lad is well."
(back l „ „ „)

(3) Imperfect interception by the point of the tongue, being contracted instead of spread :—

Ex. : "The little lad is well."
(Contracted pt.)

(4) Rounded lips :—

Ex. : "The little lad is well."
The wittoo wad is weh oo.

(5) Nasalising the "l" and thus producing a very agreeable sound, said to be common in Glasgow :—

Ex. : "The little lad is well."
(Nasalised "l.")

I do not know how far the knowledge of phonetics would be of practical use to the dentist. There can be no doubt that every dentist must know the elementary and outstanding facts of consonantal movements, but it may be the minute details are to him unnecessary. Would it be, for instance, of any use for him to know how these defective sounds are made on a perfect palate ? To know whether in a front-divided voiced consonant (i.e., "l") the voice escapes over the right, the left, or equally over both sides of the tongue. Would it not be well, and of practical use, to know the exact point of obstruction in an English consonant "t," a French "t" and an Irish "t." The difference in the sound of each of these is due to tongue action, with which the dentist may say he has no concern. But might he not unjustly suspect his own perfect workmanship where he found divergencies so great in the articulation ?

On the other hand, there are many questions that the phonetician asks of the dentist. He wishes to know, e.g., at what precise degree of abnormal height or shape of palate does "l" or "r" become difficult or impossible. Such faith has the phonetician in the agility and adaptibility of the tongue that he hesitates to pronounce non possumus. He finds that the education of the tongue secures approximately accurate articulation even under apparently impossible conditions ; but after all is said, there can be no doubt that perfect form best secures perfect action, and for this perfection in form I contend he ought more frequently to resort to dentistry.

It is my experience that when the speech is imperfect in children from dental causes a condition has been reached which urgently demands the aid of the dentist, and to my knowledge that condition exists in far too numerous instances, and yet nothing is done to amend it.

One feels, however, that the main argument for school inspection must rest on the broader basis of the health and comfort of the individual, and the danger to the national life and welfare. In this regard the subject becomes one of the most important that can engage the attention.

What can be more significant to every citizen than the facts lately

laid before the country through the investigations of the Royal Commission on Physical Training. With such an array of facts it seems criminal to delay any longer the inspection and alleviation of multitudes of suffering children.

Apart altogether from defects of teeth, Dr. Francis Warner has shown that out of 100,000 children examined, there were 2127 defective palates, 1180 narrow palates, 695 V-shaped palates, 179 arched or vaulted palates, 47 cleft palates (hard or soft), 28 other defects, flat, &c. In all likelihood in every one of the 4256 cases the speech would be more or less defective ; but that point is not brought out in Dr. Warner's statement. I should further like to know in how many of these cases perfect articulation could be attained through dental science.

Dr. Leslie MacKenzie gave evidence before the Royal Commission that of the 600 Edinburgh children examined, only 5 per cent. used a tooth-brush ; that 571 had decayed teeth of the first set, and 110 cases had decayed teeth of the second set.

Professor Hay found that in 600 Aberdeen children, 12.5 professed to use a tooth-brush daily ; while 381, or 63 per cent., had decayed teeth of the first set, and 388, or 65 per cent., had decayed teeth of the second set.

It is a matter for great regret that the investigation was not made by dentists, for no matter however eminent medical men may be, it is simply impossible for them to keep pace with the advance of science in dentistry. The specialist here is the only person qualified to speak with the weight and guidance that is demanded.

In an excellent paper by Mr. Sidney Spokes, read before the School Dentists' Society in September, 1900, the subject of the present paper was dealt with in the most thorough and convincing manner. Amongst many other valuable statistics given were the results of the investigations made by the British Dental Association. Of 10,000 Poor-Law children, only 14 per cent. had teeth free from decay ; while in the high-class schools the state of matters was, in some respects, worse. Out of 560 boys at Haileybury College only thirteen had sound permanent teeth.

A systematic general dental examination would, no doubt, reveal more exactly all the adverse circumstances and conditions now operating against the young, but it would inevitably lead to the means of alleviation and prevention of these evils. If nothing more were done than to inculcate and enforce cleanliness—the use of a tooth-brush—an immense stride toward health would be made. Absenteeism would certainly decrease, and the child would be better able to assimilate lessons when he is freed from the torture of toothache.

No doubt the policy of prevention of disease cannot be so lucrative to the dental profession as is the heartless policy of laissez faire. But surely few facts are more inspiring than this, that the whole brotherhood of the healing profession—surgery, medicine, dentistry—is moving towards the prevention and extinction of disease, while self-interest might whisper " leave things as they are."

In every question that concerns improvement in the conditions of life there emerges the important one, "What is the cost?" For the inquiry itself it seems advisable that the ratepayer should not be called upon; and the hope is that the dental profession would, in every great centre, be willing to undertake the labour involved without fee. But any subsequent action in the way of amelioration or prevention must be put on a sound financial basis.

School Boards have already shown themselves alive to the interest of the children and of the nation, in making special provision for the blind and dumb of school age. They have also made provision for developing the physical as well as the mental faculties; and surely when the need of dental skill is clearly exhibited the necessary funds will be found.

It is contended, however, that practitioners have no time to undertake such work; but if the remuneration were made adequate, there are in every populous centre qualified men to whom the work would be interesting and attractive. But that is a practical question which one outside the profession must not presume to answer.

I believe, however, that a large proportion of the parents would be found both able and willing to pay for the dental attention replace and be satisfactorily settled wherever the subject is dealt with benefit. All such questions of detail would fall into their natural place and be satisfactorily settled wherever the subject is dealt with in such a way as to command the attention of the community.

On the practical side of the question Mr. W. J. Fisk, Hon. Secretary of the School Dentists' Society, has given most valuable statistics. He and other members of that Society have proved beyond all cavil the advisability and the possibility of carrying out this reform in our national life.

I trust the British Dental Association will speak out on this subject with unceasing reiteration, until every School Board and every educational authority be aroused to the fact that an enormous waste of national life and well-being could be arrested by means so simple, so economical, and so far-reaching in their effect as the dental examination and correction of the young.

All questions as to cost sink into insignificance before the fact that in the long run Health is the cheapest and Disease the costliest to the individual, to the community, to the nation, and to humanity.

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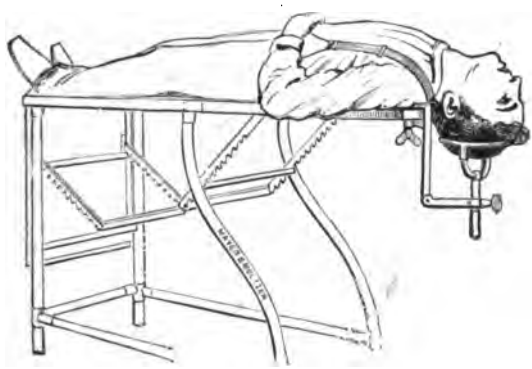

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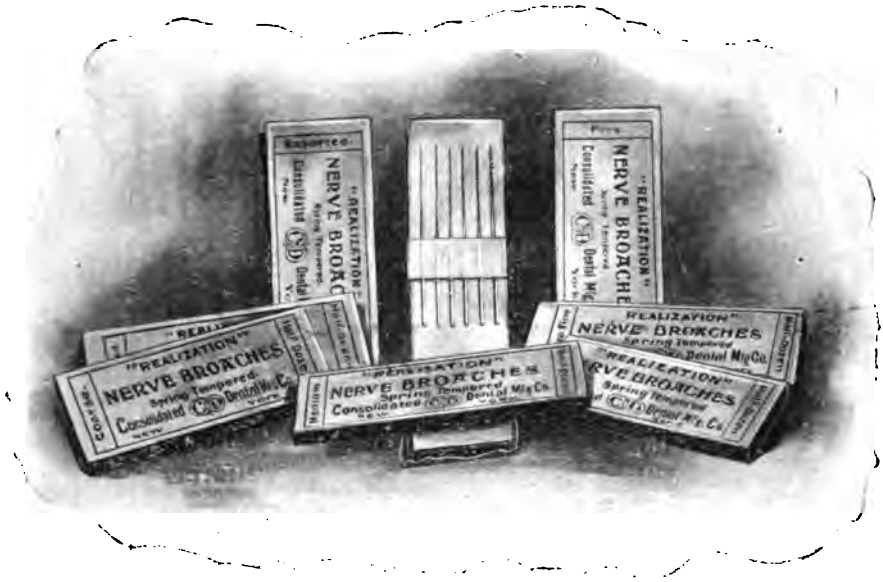

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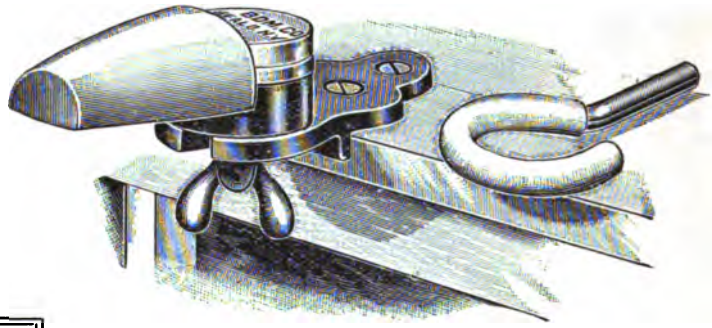

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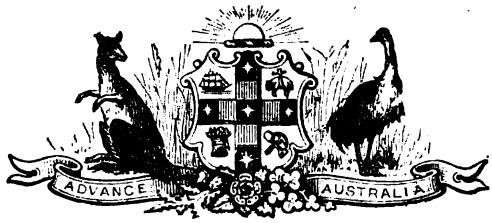

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THE AUSTRALIAN JOURNAL OF DENTISTRY.

VOL. 9.] FEBRUARY 28, 1905. [No. 2.

EDITORIAL.

After placing on record the chronicle of success which has attended the conjoint labours of the Dental Board, the Melbourne University and the Council of the Australian College of Dentistry in securing the recognition by the "General Medical Council for the United Kingdom" of the curriculum of dental education now demanded from students in the State of Victoria, it seems to us a little difficult to quite understand the able and genial Editor of the "Dental Cosmos" in his remarks under the heading "THE WAY IT LOOKS OVER HERE," which appear in the January issue of that journal, and we can well say that whatever may be the features of the initial dental legislative parturition in Australia which have attracted that Editor's attention, they certainly should not, and do not, apply to our work in Victoria; nor, so far as we can realise, have there been any marked features of dystocia in our proceedings.

Even now, at this time, it appears to be necessary to make a brief statement of facts—those facts which are already a matter of history so far as the colony of Victoria is concerned—we can say that Dental Education began its development with the formation of the Odontological Society of Victoria in the year 1884, and it has continued in the direction of natural evolution. Time, fortunately, has shown that our action has been in the right direction.

There were some here in Victoria who foresaw the benefit to be gained, and who at that time made a strenuous attempt to gain the fundamentals in education ; that is to say, could they then have secured the standard of the Melbourne University Matriculation as the compulsory preliminary examination before entering a course of dental study, much trouble and argument would have been saved, and the Victorian curriculum would long ago have been accepted. As it happened, the fathers of the movement in Victoria had to take the only course open to them in accepting a portion of the scheme which was the object of their aim, then, proceeding slowly with the knowledge gained, they patiently worked and looked forward to its fuller attainment.

One of the difficulties that had to be contended with was the apathy of those members of the dental profession who considered they were conducting their practice in accord with professional ethics.

The other phase of the difficulty that had to be faced was that some who were in practice (?) (save the mark!)—at the time when the Victorian Colonial Parliament, in its wisdom, passed the Dentists' Act of 1897, and the necessary Amending Act of 1898—were watching keenly, and apparently without any professional instincts whatever to guide them, ready to jump the whole situation for their own personal aggrandisement and to gain their own ends.

The Editor of the "Dental Cosmos" is not alone in believing that the ideal of the federation of the Australian Colonies into a Commonwealth should have escaped the irritations and animosities which have beset older Commonwealths, and with which both they, and we, still have to contend. It is nevertheless the fact that up to the present time the Australian Commonwealth Government and Parliament is not looked upon by many as a perfectly successful entity. And, if the larger and broader views of Government control and general beneficence are not at present realised, how can it be possible that the comparatively small interests of the dental profession—those safeguardings which we think so necessary and are so much to be desired—can accomplish that psychological moment for unification which is said to be not only possible but easy ?

When we can find in the other States that levelling up to our standard of education in Victoria, then we can hold out and grasp the hands of our dental brethren in the cordial hand-shake of reciprocity. We have already suffered too much at the hands of those undesirable and always adventurous gentlemen, who, after registration in their own colony, came to exploit what in their estimation was a wider field for their daring.

Whatever else may be done in Victoria, the right principle of a thorough dental educational training will be maintained.

As in the past the integrity of the Melbourne University in the value of its Medical Degree has been upheld, so it will be the part of the Dental Faculty to uphold the honour and integrity of the degree of Bachelor of Dental Surgery.

DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Board was held on Friday evening, the 24th of February, 1905, at 8 o'clock at the Board's offices, 454 Collins Street, Melbourne.

The chair was occupied by the President (Dr. Springthorpe). There were also present Dr. Mullen, Mr. Clarke, Mr. Iliffe, and Mr. McGregor.

The minutes of the previous meeting were duly read and confirmed.

The President read the following letter, which he had forwarded to the General Medical Council in acknowledgment of their letter advising the Board of the recognition by the Home Authorities.

Melbourne, Feb. 20th, 1905.

H. E. Allen, Esq., Registrar General Council of Medical Education and Registration of the United Kingdom, 229 Oxford Street, London, W., England.

Sir,—I have the honour to acknowledge receipt of yours No. 14,720, dated December 1st., 1904, and to express the great satisfaction with which the Dental Board of Victoria has received the

news that its License has been recognised by the General Council of Medical Education and Registration of the United Kingdom, subject to three conditions therein specified, to which qualification my Board cordially agrees. It will be the constant endeavour of the Board to maintain the Imperial recognition which it has thus received. As regards qualification 3, my Board desires to obtain from you the fullest evidence (with illustrations) of what are "the complete returns of all their examinations" that the Licensing Bodies in the United Kingdom actually furnish from time to time. In reference to the final paragraph in the report of the Dental Education and Examination Committee, as given on page 13 of the Australian "Journal of Dentistry," herewith enclosed, the Board recognises the necessity of some satisfactory test of the sufficiency of its examinations at the hands of the Imperial authority, and regrets that distance is considered to render personal inspection an impossibility. It is naturally anxious to facilitate such test in every way possible, and has already granted powers of visitation to the Council of the University of Melbourne. It is prepared also, if the General Medical Council so desire, to retain all examination papers, returns, &c., for 12 months, and forward them to you as its Registrar.

The Board also asks to be furnished with the detailed statistical experience of the proportion of passes and rejections that has obtained during the past 25 years at the examinations of the several Licensing Bodies of Great Britain. But whilst agreeing that, as a general rule, it would be fair to expect no great difference therefrom in a similar period here, and even in more limited periods under similar conditions, it recognises the possibility of such a comparison, if entirely relied upon, proving somewhat unfair to our small and vigorous school with a Matriculation standard at entry, and, so far, an unusually competent body of students. It hopes, therefore, that over and above such statistical comparisons some scheme of visitation will be gradually evolved, and it would suggest that some arrangement might perhaps be made by the General Medical Council with the Council of the University of Melbourne, which, as already stated, has such powers conferred upon it by the Dental Board of Victoria.

Again expressing the local gratification with which the high honour of registration has been received by all concerned in Victoria. I beg to remain,

Your most obedient and humble servant,

J. W. SPRINGTHORPE, M.A., M.D.,

President of the Dental Board of Victoria.

The reply was approved by the Board.

The Registrar of the Dental Board of Western Australia wrote to inquire whether

(a) The Victorian Board would accept the degree of Doctor of Dental Surgery of the University of Pennsylvania as entitling an applicant to registration in Victoria ; and

(b) Whether the Victorian Board would accept a Pennsylvania State Board Certificate as entitling an applicant to registration in Victoria.

The Registrar reported that he had replied in the negative. The Victorian Board would only accept a degree which represented a course of instruction equivalent in every respect to the Victorian curriculum. The Board had, however, power under its regulations to determine the status in the Victorian curriculum of the holder of a foreign Diploma.—The reply was approved.

ARTICLES OF APPRENTICESHIP.

The following Articles of Apprenticeship were approved by the Board, and copies filed with the Registrar :—

Joseph Polack, with Mr. L. Price—Three years.
Laura Hutchings, with Mr. S. E. Wills—Three years.
J. B. McNair, with Mr. A. L. Baird, L.D.S.—Three years.
W. A. Dott, with the Australian College of Dentistry.
H. C. Morgan, Ditto.
A. G. J. Naylor, Ditto.
F. S. Parrett, Ditto.

The following are the results of examinations :—

L.D.S. Course.—First Year.—Passed—F. G. Belcher, S. B. Croad, A. J. E. Ffrost, E. S. Gibson, F. C. Mattingley, H. M'Cooey, E. Storey. Second Year.—Passed—N. R. S. Carter, Miss M. J. Rae. Third Year.—Passed—F. M. Kiel, J. M'Donough.

Preliminary Examination.—Passed—W. G. L. Alexander, A. E. B. Barnes, B. T. Bell, E. R. Bissett, H. J. Boyd, J. W. Brownbill, R. A. Cooper, J. J. Carroll, L. De Beer, E. M. Gawley, J. D. Keenan, C. M. Murrell, C. A. M'Creery, A. M'Gibbon, F. D. Morgan, J. A. Nattrass, A. O. Nicholls, C. N. Roebuck, H. Tredinnick.

A large amount of correspondence was dealt with, and the Board adjourned. E. Joske, Registrar.

PERSONAL.

Dr. Springthorpe and Mr. W. Witt, J.P., have been reappointed the representatives of the Government on the Dental Board.

Dr. J. W. Springthorpe, M.A., M.D.. the president of the Dental Board, has been elected the first Dean of the Dental Faculty of the University of Melbourne.

We have much pleasure in announcing the fact that one of our recent students, Mr. Harold B. Henley, L.D.S. Vic. et M.A.C.D., has been appointed to the position of Honorary Dental Surgeon to the Launceston General Hospital. (Matters and things grow.—Ed.)

Dr. A. P. Merrill, D.D.S., when recently in London, was elected a member of the Royal Geographical Society of England, and a Fellow of the Royal Colonial Institute, London. He has also been appointed by the United States Government its Vice-Consul General for Australia.

OBITUARY.

MR. SYDNEY BAILEY-FISHER, L D.S., Eng.

It is with deep regret that we record the death at the early age of 32 of Mr. S. Bailey-Fisher, who succumbed to an attack of brain fever on Thursday, the 16th of February. Mr. Fisher came to Victoria some time in 1897, as his name appears on the "Dentists' Register" under the date 24th September of that year. He settled in Ballarat, and became well known as a dentist in Sturt Street. During his brief association with Ballarat he built up a large practice. He leaves a widow and three children.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

The monthly meeting of the Board was held on Tuesday, January 31st, at the Board Room, 7 Richmond Terrace, Domain, Sydney.

The President (Mr Hodgson) took the chair at 8 o'clock, there being also present Dr. Peach, Dr. Palmer, Dr. Kirkland, Mr. C. Hall, Mr. C. C. Marshall and Mr. G. Norton Russell.

An apology was received from Mr. J. Stinson.

The minutes of previous meeting were read and confirmed.

The bank pass book was examined and found correct, and accounts passed for payment.

The following applications for Registration were dealt with :— Mr. Edward Hunton West, 89 Chapel Street, Windsor ; Dr. William C. Hough, Randwick ; Mr. Malcolm P. Alkin, The Strand, Mosman's; Mr. Harold Edwin Pascoe, Camberwell, Victoria; Mr. Harold Leslie Hollander, Ocean Street, Bondi ; Mrs. Gertrude Trudgeon, Bundaberg, Queensland.

The application of Mr. E. H. West was refused on the grounds that his precentor was not eligible for registration in this State as directed by the Act.

The application of Mrs. Gertrude Trudgeon was postponed for further information.

The auditor's report and balance sheet were duly presented, and, after discussion, on the motion of Mr. Norton Russell, seconded by Dr. Palmer, the report and balance sheet were carried and "adopted."

A further discussion took place on Time Table for Examination, and after the necessary alterations were made as suggested, they were finally adopted and sent to Examiners.

Correspondence was read and dealt with.

Dr. Palmer gave notice that he would move at next meeting to rescind the motion as now standing, "That in future all candidates for registration be required to present themselves before the Board in support of their application for registration," and substitute a further motion.

Meeting closed at 10.50.

HORACE TAYLOR, Registrar.

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

The 119th monthly meeting of the Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on 3rd February, 1905.

There were present Dr. Astles (President), Dr. A. J. Bennett, and Mr. A. J. Wright. Drs. Newton and Wilkinson sent apologies for absence.

The minutes of the previous meeting were read and confirmed.

THE LATE MR. AMOS FIRTH.—The Registrar reported the demise of Mr. Amos Firth, dentist, of Subiaco, and that a letter of sympathy had been addressed to Mrs. Firth. The Registrar was instructed to remove the name from the Register.

LICENSE FEES.—The Registrar reported that 38 dentists had paid the annual license fee, and that seven dentists had not paid. The Registrar was instructed to write the latter stating that in accordance with the Act their names no longer appeared on the Register.

CORRESPONDENCE from the following was submitted :—Messrs. James & Darbyshire, A. C. N. Olden, Corporal Fee, J. Iliffe, the Registrar of Melbourne University, Crown Solicitor, and Dental Board of South Australia.

FINANCE.—The bank pass book and certificate and the Board's cash book were laid on the table, and accounts were passed for payment.

F. M. SYME, Registrar.

SOME ANOMALIES OF THE HARD DENTAL TISSUES.

BY A. HOPEWELL-SMITH, M.R.C.S., L.R C.P., L D.S., ENG.,

LECTURER ON DENTAL ANATOMY AND PHYSIOLOGY, AND ASSISTANT DENTAL SURGEON AT THE ROYAL DENTAL HOSPITAL OF LONDON.

Presented to Section I., Fourth International Dental Congress, St. Louis, Mo., September 1, 1904.

In the following communication I have pleasure in submitting to the congress a few brief notes on several rare pathological conditions of the enamel and dentin of the teeth of man. They are isolated cases, and so far as it is possible to judge are unlikely very soon to be pluralised.

The question of the value of examining and putting on record solitary instances such as those about to be described is one of some importance. Facts are best deduced from a great number of observations, every side of a subject being scrutinised and utilised in all its aspects ; incontrovertible proof is most surely obtained from the work of many years, and as the outcome of the examination of much material.

It sometimes happens, however, that opportunities arise for the investigation of curious irregular conditions which are seldom met with. A study of such is, however, not valueless, but may by its very obscurity and very rarity serve two purposes. First, it may be possible at times to find that light is unexpectedly but clearly thrown on normal physiological but not easily understood problems; and second, the sum of our knowledge of the workings of the forces of disease may be enlarged, and consequently the guiding principles of prophylaxis or treatment distinctly benefited. On the other hand, it is possible that partly understood processes—physiological or pathological, as the case may be—may be rendered even more complex and leave the mind in a more chaotic state than before. It is to be hoped, however, that that will not be so in this instance.

The processes of calcification of enamel, dentin, and cementum are defined with some considerable difficulty, and the problems re-

lating to absorption of the hard tissues do not admit of an easy solution. It may be found useful at some distant date to recall the extraordinary appearances presented by the following studies.

Duplication of the Pulp-Cavity.

An upper first permanent incisor was removed from the mouth of a young adult for the purpose of relieving the crowding of the anterior teeth. It was apparently sound, save for a longitudinal depression on the mesial aspect of the crown. On preparation and staining it was found to possess two pulp-cavities, each free at the distal extremity but united toward the radicular portion of the neck of the tooth. The smaller cavity was situated on the lingual side. A median vertical section showed that the enamel and dentin of the labial surface was practically normal. But the lingual side displayed several interesting and unique pathological conditions.

The enamel was much thickened in amount—there was what one might term hyperplasia of this tissue. It was, moreover, of poor construction, imperfectly calcified in places, but free from caries or external or internal absorption. It coloured vicariously and in patches only by the borax-carmine stain.

Projecting into this thickened enamel, and close to the primary pulp-cavity, was the subsidiary pulp-chamber, whose surface was smooth and did not present the foveolæ of Howship. A thin narrow spur of well-formed dentin, similarly unabsorbed, intervened between it and the free surface of the tooth. Nowhere did the dentin show signs of absorption. It was, generally speaking, fully developed, the tubes ending in the usual manner and extending in the usual direction. The pulp tissue was not well preserved, but fragments exhibited nothing abnormal in its structure.

It is not at all an easy matter to decide as to the method of the formation of the second pulp-chamber. It is possibly due to segmentation or invagination of the enamel organ on the tongue side of the tooth-germ, and dichotomy of the dentinal papilla in the corresponding situation. Had the process continued to a completer stage, there would probably have been found a true gemination of the tooth, by the budding off of a smaller caniniform structure on the inner side.

The invagination of the epithelial tissues might be accounted for by the mutual pressure of large teeth-germs in a small dental arch.

Undoubtedly, had it been necessary to drill into the crown with a bur on the engine, the enamel would have easily snapped off and exposed the pulp in one or both chambers—an element of danger never to be forgotten in the preparation of cavities during the obturation treatment of dental caries.

False Pulp-Nodule.

Suppose this carious process had applied to the root portions of the dentinal germ, a condition such as is exemplified in specimens similar to the next to be described would assuredly be noted. Here the anomaly is in the root ; in the case just described it was in the crown. For a section showing this irregularity the writer is indebted to the courtesy of Mr. Leslie Hodges, D.D.S., of Birkenhead, who sent him a section of an upper second premolar.

At first sight it would appear that a large pulp-nodule in situ was the only pathological change ; but this is not so. Attached to one side of the root-canal, and deflecting the pulp from its usual course and position, was a large oval structure of dentin, having a kernel composed of osseous tissue and soft material containing bloodvessels. It soon became obvious, however, that the centre of this adventitious body, which must be considered to be a developmental defect, was a compromise between compact bone and hyperplasic cementum. The lamellæ of properly constituted Haversian systems of the former were absent ; the grossly exaggerated lacunæ of the latter were present in a multitude of shapes and sizes. The chief point was the enlarged width of the granular layer of Tomes, with larger spaces than usual. In this respect the periphery of the new structure corresponded very closely with that upon the external part of the cementum, with which it was most probably in direct and continuous communication.

The condition might have been produced by the invagination of a piece of the inner wall of the dental follicle or periodontal membrane, and its inclusion and full development when in situ. Precisely how this has been occasioned it is impossible to say. The epithelial sheath of Hertwig—a prolongation downward and then upward of the layer of cells of the internal epithelium of the enamel organ—may, during its formation of the shape of the root, have

undergone a spurlike budding, which, projecting inward, produces the appearance noted. At all events this is an example of another obstruction to be met with at times in the root-canals of teeth, and one which makes the total extirpation of a pulp a remarkably difficult if not impossible operation to perform.

Absorption of Enamel and Dentin.

The last case to be described presents a most rare and extraordinary condition of absorption of the hard tissues. A mandibular third molar, whose external configuration was of a more or less normal character, was divided several times in a vertical direction to ascertain the structure of an osseous mass situated securely on the exposed surface of the crown. After staining with Weil's process it was found that not only had the greater part of the enamel been removed by some obscure pathological process and compact bone deposited in its place, but that the greater part of the dentin was similarly affected.

In one place the amelo-dentinal junction was not only invaded, but the underlying dentin had been removed to such an extent that only a thin layer of hard normal tissue intervened between the pulp and the amelo-dentinal junction. The spaces were thus occupied by a mass of well-formed bone, lacunæ with their bone corpuscles and canaliculi everywhere predominating, and extending as trabeculæ in all directions. The intervening soft tissue presented nothing of a definite structure, as the soft parts had not been retained in their fresh state in physiological relationship to the bone or dentin. It is impossible for enamel or dentin or cementum to become inflamed—their anatomical peculiarities absolutely preclude this—and it is very difficult at first sight to explain the presence of the new adventitious tissue in this situation. Speaking with all reserve, however, it may be that an inflammation of the dental follicle has occurred. Osteoclasts, acting for some long period, had brought about absorption of the enamel surface, more and more of the tissue became removed, and presently the dentin was reached. The pathological work was more rapidly conducted in the latter, because of the ease with which tubular tissue can be absorbed.

Simultaneously with the inward march of an army of osteoclasts came multitudes of osteoblasts and soft tissue freely vascularised from the dental follicle; and the result was a repairing of the

breach by the production of true bone. That there had been some inflammatory changes in the periodontal membrane and dental follicle was evidenced by the enormous hyperplasia of the cementum, which in one of the sections extended some considerable distance over the enamel margin. The cementum itself was very lacunated and quite abnormal in character.

It is again obvious that in the operative treatment of such a tooth, a bur on the engine, no matter how lightly used, would suddenly and without warning plunge into the pulp-cavity and expose the surface of that organ.

RECAPITULATION AND SIGNIFICANCE.

All these cases—of the frequency of occurrence of which one is unable to form any opinion—point to the fact that should always be borne in mind when excavating carious cavities in enamel or dentin and using the dental engine, viz., that curious developmental and acquired defects of these tissues that in themselves are absolutely outside the realm of diagnosis may exist. And extreme care should ever be exercised in the treatment of cavities, lest any such condition as described should, unwittingly on the part of the operator but none the less disastrously, be suddenly and inexplicably discovered.—"Dental Cosmos."

CONSTITUTIONAL CAUSES OF TOOTH-DECAY, EROSION, ABRASION AND DISCOLOURATION.

BY EUGENE S. TALBOT, M.S., D.D.S., M.D., LL.D, CHICAGO, Ill.

(Read before Section II. Fourth International Dental Congress, St. Louis, Mo., August 30, 1904.)

To Dr. W. D. Miller is due the honour and credit par excellence for his masterly discovery of the local causes of tooth-decay. Unlike etiologic discoveries in other diseases, that of lactic acid ferment but partially suggests prophylaxis. Indeed, despite treatment, tooth-decay is more rapid and widespread to-day than formerly; with each generation ushered into the world the ravages of decay increase. This being the case, what are the underlying factors influencing these conditions?

The underlying factors which are set forth at length in my paper entitled "Anatomic Changes in the Head, Face, Jaws, and Teeth in the Evolution of Man," read in the Section on Anatomy, Physiology, Histology, and Microscopy*—comprise the phases of the evolution of the face, jaws, and teeth. These are modified by neurasthenia and faulty nutrition of one or both parents or the child, or of all combined. If this be doubted, let the sceptic compare his patients with children of similar ages in any school for degenerates in this or any other country, or compare healthy normal children with the degenerates of the same family. Naturally, the secretions of the mouth are vitiated by the conditions named, and the lactic acid ferment is assisted. Vitiated excretions, however, do not account for all facts in the following cases.

A woman, twenty-two years old, a life-long patient, became pregnant. Her teeth, which had been in fine condition up to this period, decayed rapidly thereafter. Caries appeared around new fillings, and many new cavities occurred within twelve months.

A girl of fourteen years had her teeth put in order in September, 1903. She went to a preparatory boarding-school. She returned in June, 1904, with thirteen cavities, some around fillings but mostly new ones.

A man, forty-six years of age, a broker, had sound healthy teeth with few fillings until an attack of nervous prostration consequent on business strain occurred, when his teeth decayed rapidly, softening so that the detritus could be removed like leather.

A minister of thirty-eight years with a fine set of teeth broke down in health from overwork. After three years' absence in France he returned to America with every tooth decayed, twenty-one of his teeth having to be crowned.

A woman of forty-six years had two sons and a daughter. The daughter at eighteen was attacked with peritonitis and died within a week, thereby plunging her mother into deep depression. The mother's teeth, previously in good condition, presented in eight months many cavities.

A woman of forty-two years, well-to-do financially; her husband had charge of her property. She went abroad for two years, and

* See *Dental Cosmos*, November, 1904, vol. xlvi., p. 897.

he was to bring her home at the end of that period. He failed to do so, and kept her abroad for two years more. Remittances became short, and she returned to find that her husband had squandered her property, and she obtained a divorce. Resultant worry, according to the dermatologists consulted, turned her hair white. There was marked recession of the alveolar process and gums from interstitial gingivitis, as well as rapid tooth-decay.

The husband of a woman of thirty-five years suddenly died, plunging her into deep depression. Her teeth softened rapidly and decayed.

In all these cases abrasion or erosion or both, and in some cases discolouration of tooth-substance, occurred. That teeth decay during illness all observers admit.

A surgeon of sixty-four years with arterio-sclerosis has an unusually well-marked abrasion and erosion with interstitial gingivitis and loosening of the teeth.

A mechanical engineer of forty-eight years has rapid erosion, discolouration, interstitial gingivitis, and loose molars.

Smale and Colyer* have observed erosion and abrasion with gout.

Tomes† mentions the case of an anæmic girl reduced to prostration by acute dyspepsia and confined to her bed for some time. She was so hysterical that it was difficult to correctly diagnose her condition. At one time, there was great tenderness of the teeth and general periostitis in the front of the mouth, which, to judge by the colour, seemed to have resulted in the death of the upper central incisors. The use of alkaline application had no effect, but the patient's general condition improved and the disease made very little progress.

Marshall‡ relates the case of a man of forty-five years in which the six anterior teeth and the right first bicuspid of the upper jaw were greatly affected, the enamel being completely removed from the anterior surfaces of all the teeth mentioned, with a considerable portion of the dentin, leaving an inclined plane pointing backward

* *Diseases and Injuries of the Teeth*, p. 280. † Marshall's *Operative Dentistry*, p. 363.

‡ *Trans. Amer. Med. Association*, 1884.

and extending from the margin of the gums to the ends of the teeth, shortening the anterior teeth to the extent of about the sixteenth of an inch.

The denuded surfaces were not all grooved in one direction ; the central incisors and the left lateral were grooved horizontally like the others, but were also grooved longitudinally at the cutting edges.

Many cases of erosion, according to Darby,* are associated with the gouty diathesis. This constitutional condition is, in his opinion, an important factor in causation.

Miller† mentions the case of a man of forty-five years who was in fair health with the exception of an occasional attack of asthma and a rheumatic tendency, and who was the subject of a well-marked case of erosion.

My attention was called to erosion and abrasion three decades ago, while making investigations among neurotics and degenerates for other purposes. Degenerate children were found to have erosion and abrasion of the temporary as well as the permanent set of teeth. In paretic dementia—a disease which usually runs a rapid course and terminates in death—abrasion is almost always marked; sometimes erosion occurs. In locomotor ataxia erosion and abrasion are always present, frequently to a marked degree. In practice I find erosion and abrasion of the temporary teeth—especially of the incisors and canines that have remained in the mouth for a longer time than normal—after the roots have become absorbed and the pulps have been destroyed. Patients with hard, sound normal teeth up to a certain period, may afterward, from neurasthenia, degeneracy, or grief, show marked traces of erosion, abrasion, and decay. The same is true of syphilis, tuberculosis, or any other constitutional disease.

Erosion and abrasion are often seen in the permanent teeth after the pulps have been destroyed.

Erosion, according to Miller, "is an effect observed in healthy teeth with living pulps, as well as on pulpless teeth, and on natural teeth worn as pivot teeth or on artificial bases.

Erosion and abrasion are observed upon the cutting edges of the

* Marshall's *Operative Dentistry*, p. 366.

† *Dental Cosmos*, March, 1904, vol. xlvi., p. 177.

anterior teeth, especially the central incisors where there is no friction from opposing teeth. Occasionally the central incisors, either upper or lower or both, alone are involved.

Erosion and abrasion are found in mouths with healthy gums and mucous membrane and upon teeth in localities where acid secretions could have no effect. The character and shape of the abraded surfaces indicate that the origin is from friction.

Change in colour of the teeth is often very rapid after prolonged illness, such as pneumonia, typhoid fever, syphilis, tuberculosis, etc. I have noticed many cases of change in colour after illness in persons who have had partial sets of teeth or when a crown has been inserted. All are familiar with the rapid change in colour as patients advance in years. Teeth often change colour during pregnancy.

I purposely grouped "Constitutional Causes of Tooth-Decay, Erosion, Abrasion, and Discolouration" under one heading for the reason that I expect to show that the changes which take place in the pulp from constitutional disturbances modify tooth-vitality The local causes are thereby accelerated. In all the cases enumerated, either the nervous system or blood supply or both are involved. While all of these lesions are observed early in life, they are most active after forty years of age. It is especially at the senile stage—the fifth period of stress, or period of involution, when the excretory organs, from overwork or nerve tire, cause faulty metabolism and auto-intoxication—that the teeth undergo changes indicated by rapid decay, discolouration, erosion, and abrasion.

Changes taking place in tooth-structure must necessarily occur either in the blood stream or nerve tissue. Investigations of nerve lesions have demonstrated that in most diseases, nerve-end degeneration takes place, as Sidney Kuh* has shown. In some of the toxic forms, as for instance in neuritis due to poisoning with lead and arsenic, the cells of the spinal cord as well as those of the spinal ganglia and brain may be diseased and the toxic substances may attack these cells before the nerve fibre itself is altered. This hypothesis explains why pronounced degeneration of peripheral

* *American Medicine*, vol. iii., No. 21, pp. 865, 868.

nerves occurs without causing any appreciable symptoms. Pitres and Vaillard first showed that after typhoid fever many nerve fibres are found degenerated in cases where during life symptoms of neuritis were absent. The same observer found like states in the nerves of those who had died from tuberculosis. Later observations have extended these conditions to such diseases as diphtheria, syphilis, alcoholism, carcinoma, inanition, marasmus, arterio-sclerosis, and leprosy ; in the so-called rheumatic neuritis of the facial nerve, and in inflammation due to articular rheumatism, gout, puerperal infection, tuberculosis, etc.

The method of cell-poisoning has been observed in other intoxications.* Certain groups of neurons are more susceptible than others to a given intoxication. The same group of nerve cells in two individuals may react very differently to similar doses of the poison. The syphilitic toxin shows a decided preference for certain parts of the cerebral cortex, other areas being less affected. The nerve endings in all parts of the body are markedly involved, especially those in and about the teeth. Peripheral nerve degeneration results where the blood current or the nerves themselves are involved from faulty metabolism, neurasthenia, etc.

If disease affects nerve endings elsewhere in the body, it is but reasonable to believe that nerve endings, blood-vessels, and connective tissue in the pulp will likewise be involved, since the pulp is an end organ situated within bony walls, and a transitory structure is doubly susceptible to disease. The tooth-pulp is at its highest physical development when it commences to form dentin. From that time it degenerates ; it begins to lose its blood supply and its nerve energy. As age advances, the blood and nerve supply is almost at a minimum. Is it surprising that so few pulps are found in normal condition ?

For the past eight years Dr. Vida A. Latham and myself have made a special study of dental pulp pathology. The results of our efforts have been presented before the Section on Stomatology of the American Medical Association and published in both medical and dental journals. Teeth in all stages were obtained from patients suffering from many diseases. These teeth upon removal

* Barker, *The Nervous System*, p. 243.

were placed in warm water, salt solution, and Muller's fluid. The pulps were removed and placed in Muller's fluid, Ehrlich's fluid formalin, and in Weigert's chrome alum solution. Sections were cut by the freezing method and stained. The staining was done by the following methods: Weigert's osmic acid and hematoxylin, Mummery's iron and tannin, iron and hematoxylin, Freund's gold, Underwood's gold, and lemon juice and gold.

Weigert's stain for medullated nerves was used on tissues hardened in Muller's chrome alum, and good results were obtained with both Muller's and formalin hardened tissues, the medullated sheath of the nerves taking the stain.

The osmic acid method was used similarly to the above, and gave good results following Weigert's chrome alum solution.

Mummery's iron and tannin, used after Muller's fluid, stained the nerve fibres, but the results were not so good as with the two previous stains. Mr. Howard Mummery, however, has been able by this stain to trace fine nerve fibres from the nerve bundles.

Iron and hematoxylin gave good results, the fibres in some places being traced to the apex of the pulp.

Of the different gold methods, Freund's has given us the best results, although some of the results of staining tissues hardened by all the methods have been good.

In a general way, pathologic conditions of the pulp were demonstrated—vascular changes and circulatory disturbances, thrombosis being very common, as also embolism, because of the vast number of loops and want of expansion; endarteritis obliterans, and arteriosclerosis. These diseases are based, in a measure, upon pulp-embryogeny, anatomy, environment, and to the end-organ nature of the pulp, as already stated.

Some years ago* I demonstrated the nerve endings in the coats of the blood-vessels of the pulp, showing its vasomotor system. The sympathetic system in disease, therefore, must play quite a part for good or evil in nerve endings and blood-vessels of the pulp. In a later paper† I demonstrated Wallerian degeneration and nerve sclerosis, showing that changes in nerve endings and nerve tissue involve the pulp.

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* *Journ. Amer. Med. Association*, December 19, 1903.

† *Dental Digest*, December, 1903.

As a result of disease of the blood-vessels and nerves of the pulp with external influence, there are retrogressive changes of inflammation ; abscess, cloudy swelling, fatty degeneration, mucoid, colloid, hyaline, amyloid degeneration, pulp-stones, spheritis, neoplasms, fibroma, etc. Some of these conditions have been discussed by Wedl, Tomes, Smale and Colyer, Hopewell-Smith, Black, Bodecker, Arkovy, Andrews, Romer, Morgenstein, Caush, Latham, and many others, whose details can be studied at length in the original monograph.

It now remains to demonstrate what relation the pulp bears t tooth-structure and tooth-resistance. I cannot do better than quote at length from a paper entitled "The Vital Action of the Dental Pulp,"* by the well-known scientist, Dr. R. R. Andrews :

"When the tooth is fully formed, the principal function of the pulp is for vitalisation of the substance of the dentin, by means of its fibrils, which permeate into every portion of the matrix of the dentin. Its function is not only to vitalise, but it may again assume its formative function whenever causes for repair demand this. . . . . We cannot look on its tissue in life ; . . . . conclusions must be drawn from what is shown to have taken place when the tissue was alive ; the living pulp, with its blood-vessels and nerves, nourishes the dentin ; vital changes do take place, and the pulp is the source of vital action. It is a living organ, subject to any physiologic or pathologic process which may act on any living matter; its connection with the general economy must be similar to that of other tissues. It will respond to the action of returning health, and caries which has commenced has been arrested by this vital action, appearing as polished blotches on the teeth, which are not uncommon. Professor Miller, in his work on 'Micro-Organisms of the Human Mouth,' calls this condition a spontaneous healing of dental decay. The dentin, which had become softened, has become hard again, and the decaying process is stopped. This change also takes place in the temporary teeth. The healed dentin retains its discoloured appearance, but becomes nearly as dense as normal dentin. These changes have been brought about by vital action, and this action came from the agency of the pulp.

"When the dentin is irritated by infection or its surface is uncovered by a break, there immediately follows a period of vital activity. If sections of a tooth made when these changes are taking place be examined, the formative cells in that portion of the pulp nearest the point of repair are found filling up with glistening globular bodies, and the tissue about it is showing an increased vascularity, as though active formative action were taking place."

Andrews was satisfied that these appearances were the result of the vital action of the pulp in its efforts to repair the tissue, and that the minute glistening particles within the canals were in many

* Read before the American Medical Association, Section on Stomatology, at Atlantic City, June 7, 1904.

ways similar to the minute globular bodies found in the tissues while the dentin matrix was developing.

"The protecting consolidation is found in teeth that are worn down, usually in the mouths of old people, and when this change has taken place these teeth are not liable to decay again, except under very favourable circumstances. . . . . These changes are due in a large measure to normal conditions as regards the vitality of the individual ; but in cases where the constitutional condition is below the normal, even where conditions seem favourable to decay, there is always an attempt made to retard the infection. Under certain conditions of environment and infection, penetrating decay is so rapid that the vital action of the pulp is overwhelmed, and the pulp becomes exposed, and is in a pathologic condition even before the breaking away of the cavity walls.

"The pulp is the central and largest source of vitality to the tooth, and it acts through its myriads of fibrils. . . . . Pain of the dentin following the touch of an instrument or from any irritation is exposed through the agency of these fibrils, and we become conscious of the sensation through them. . . . The dentin is and was meant at all times to be a living tissue. It receives impressions of injuries and responds by processes of repair. Some of the ablest men in the profession have questioned the further value of the tooth-pulp after the full formation of the tooth has taken place. They look on it simply as a formative organ, and consider its mission closed with the formation of the tooth. It is, therefore, in their judgment quite as well to destroy it, take it out, and fill its chamber. The microscopic appearance of dentin after the pulp is removed shows that a large amount of dead organic tissue is left within the canals that cannot be taken out, and the dead tissue is a source of considerable danger to the health and vitality of the pericementum. . . . . With death of the pulp, not only is sensation in the dentin lost, but also all the changes wihch vitality gives to an organ, such as nutrition and recuperation. These can never by any possible means be revived. . . . . In cases of a lessened vitality we may expect more or less pericementum trouble, a darkening of the tooth, a recession of the gums, and an absorbing of the alveolar processes. The tooth is beyond the influence of any systemic process, and there is no probability of a change for the better."

Many of the facts here depicted by Dr. Andrews have been observed by most practitioners. The vividness of the portrayal of the vitality of the pulp must be appreciated by all. If, under certain conditions, the pulp can take on recuperative power at any period of life, retrogressive changes must also occur under certain conditions.

In summing up, it is clear that owing to the evolution of the face, jaws, and teeth, the teeth are naturally prone to degeneration (decay, erosion, abrasion, and discolouration). While the law of the survival of the fittest, so far as general health obtains, evolution

and degeneration of the teeth are progressing, slowly but surely. The influence of taint and disease are carried with the teeth from generation to generation. The chances for recuperation of tooth-structure by the inheritance of better blood-making are not so great as in the case of other structures of the body. The tooth has always been a very variable factor in evolution.

In somatic diseases, in metal and drug poisoning, in pregnancy, as well as in pulp-disease itself, vital action of the pulp is involved. Vital changes take place, the fibrils become diseased, tooth-resistance is lost, discolouration and softening of tooth-structure occur. Friction wears away the teeth, and, owing to want of tooth-structure, lactic acid ferment causes rapid tooth-decay.

—"Dental Cosmos."

PHYSICAL DETERIORATION IN RELATION TO THE TEETH.

Abstract of a Paper read at the Annual General Meeting, Aberdeen, August 8th, 1904.

BY J. SIM WALLACE, D.SC., M.D., L.D.S.

I do not intend to go into this general question in all its bearings, but will rather begin by mentioning a limitation. Deterioration may be inherent, and then might properly be called degeneration, or it may be the result of an environment becoming progressively more unfavourable. It is only in this latter aspect that I intend to consider the subject.

It is unnecessry for us to enquire whether there is an increased deterioration in the national physique. For this enquiry it is sufficient that the subject has been raised, and that as regards the teeth there are hardly two opinions. We may direct attention to the relation between physical degeneration and the teeth from three points of view.

Firstly, let us ask whether the unfortunate state of the teeth is a result of general physical deterioration. Have we any substantial evidence that the ill-developed classes have teeth more susceptible to decay than those whose physical development is distinctly good? I venture to believe that there is not any distinct evidence to support this view. It must, however, be admitted that some eminent authorities consider that vitiation of the oral secretions from general ill-health is the chief predisposing cause of dental caries. I do not wish to seem to contend that vitiation of the oral secretions may not predispose to caries, nevertheless I contend that these predisposing causes are not of any great moment when brought about by a state of imperfect development alone.

It is not only by inducing caries, however, that the teeth may be injured. Their use and their beauty may be greatly impaired by irregularity. Physical deterioration and irregularities of the teeth are necessarily intimately correlated, because the conditions which give rise to imperfect development are almost invariably associated with prolonged malnutrition and emaciation.

Next we may consider the question whether physical deterioration may, or may not, be due, as a general rule, to bad teeth. To this question there seems to be but one answer. We cannot expect physical development to go on satisfactorily so long as the teeth are decaying or are otherwise diseased. All parts of the function of digestion are necessarily intimately correlated, so that it does not surprise us that his disturbance of the first stage of digestion is very apt to upset the normal working of the stomach.

In addition to this, the harmful results of decaying teeth may also be brought about by the injury and inflammation inflicted on the gums. This might not be considered serious were it not that the inflammation is apt to spread backwards to the throat, and thus render it susceptible to be attacked by pathogenic micro-organisms. It has at least been maintained that several diseases having a local manifestation in the throat are predisposed to by such conditions. Akin to these considerations is the belief that the normal bacterial flora of the mouth is inimical to pathogenic microbes, as contended by Dr. Miller and others. Whether these views are strictly accurate or not remains to be proved, but they are so much in accord with commonsense and the analogy of other cavities having a communication with the outside, that the burden of proof would appear to rest with those who might venture to question its truth.

I am afraid we are apt to think that these questions should be solved by the physician and the physiological chemist, rather than by us as dental surgeons. Unfortunately, there is a similar belief among physicians. They think that those problems should be worked out by the dental profession. It is remarkable also how some medical practitioners will trace the cause of certain troubles to any and all the organs of the body except the mouth, and yet the mouth is admittedly the entrance portal for the great majority of the diseases from which we suffer. But to return more closely to our subject, the swallowing of septic matter is not the most seriously detrimental effect. It is the direct absorption of septic matter into the blood. This condition is common and chronic. I am probably within the mark in saying that 50 per cent. of growing boys and girls of the working classes in towns have one or more septic roots in their mouths prejudicially affecting their health. Here, however, the question arises, does the class, which is physically most degenerate, really suffer more from septic roots? To this there can be but one answer. They do. It is generally supposed, and no doubt it is true, that the upper classes are more subject to dental caries than the lower classes, but they are much

more careful to have their teeth attended to. On the other hand, it is remarkable how few hospital patients have their teeth attended to regularly, and how few are without several septic roots.

Now let us direct attention to the question whether there is anything in our surroundings, or general mode of living, which is prejudicial both to the teeth and to our general physical well-being? I venture emphatically to submit that there is. I have been struck by the marked superiority of the teeth of those who eat the least soft and refined food, and also see, what appears to me good evidence, that those who have been brought up on and continue to eat natural unrefined food, have a much better digestion than those who eat the most refined and apparently physiologically digestible food. In other words, I have come to the conclusion that food which demands efficient mastication is not only best for the teeth, but for the stomach and intestines also.

It may be said that the pap-feeding of children is the outcome of years of practical experience, and that it might be a fatal or dangerous experiment to venture upon a new method of feeding. All possible theories may be advanced against feeding children with food which demands much mastication, but the system has already been put to the test over and over again. In many cases it has been carried out more or less by chance, or by force of circumstances, but recently it has been put into deliberate practice in several parts of the kingdom, and from all I hear, with the most excellent results. I know of one child, who since he was weaned seldom got any food which did not require a very considerable amount of mastication, and before he was three years old he sat down to his Christmas dinner, and had a liberal supply of turkey, boiled ham, greens and potatoes, two helpings of plum pudding, some nuts and an apple. He was not in the slightest way upset, and was happy to go through the same meal on the following day, except that the turkey was cold. Needless to say, his teeth do not show the slightest signs of decay, although nowadays, at the age he now is, it is quite usual to find decay more or less advanced in several teeth.

It is scarcely realised that the masticatory apparatus of a child of two to two and a half years of age is relatively very large. It is much larger than an adult in proportion to the size of the child, and considerably larger in proportion to the amount of food consumed. Nor is the significance of these anatomical facts realised by those who advocate porridge and milk, milk pudding, and bread and milk as staple articles of a child's daily diet.

An interesting corroboration of the views we have just put forward is to be found in the well-known fact that children brought up in towns have generally a worse physique and much worse teeth than country-bred children. This no doubt arises from the fact that the town-bred child has meals largely consisting of, or supplemented by, the products of pastrycooks and confectioners, while the country-bred child has meals largely consisting of, or sup-

plemented by, the fresh and natural foodstuffs from the kitchen garden and the orchard. It should be noticed, however, that there is no necessary connection between town life and dental caries. A class illustration of this is to be found in the fact that certain Jewish children who are brought up on food better adapted for the preservation of the teeth and body in general have much better teeth and ampler dental arches than the equally town-bred Gentile. So, too, the growth and general physique are correspondingly better.

Another convincing corroboration of these views is to be found in a consideration of the increased prevalence of certain diseases. In a general way it may be said that we are in less danger of disease than were our ancestors. The advances of sanitary science, the steady progress of medicine, and the control and conquest of one disease after another, together with the general increase in comfort in which we find ourselves, all tend to physical well-being and freedom from disease, but notwithstanding this general amelioration there has been an appalling increase of these very diseases which have their origin in the soft, refined and highly nutritious foods, which neither stimulate the muscular activity of the jaws, or stomach, or intestines. Dental caries was once almost unknown; now, in England at least, it is the most prevalent of all diseases. Indigestion and constipation have become so common that they are almost looked upon as necessary concomitants of civilisation. Increased mortality is caused by diarrhœa, resulting from undue lodgment and consequent fermentation of food. Appendicitis from the lodgment of fœcal or other matter, which the weak or sluggish intestine is unable to pass on, is an alarmingly fashionable disease. Neurasthenia arising from gastric and intestinal insufficiency is now quite common, although a generation ago even the name of the disease did not exist. Adenoids have become so common that a new class of surgeons is kept busy removing them. Lastly anæmia and rickets, presumably from septic roots and malassimilation and oral sepsis, have increased. Yet in spite of these terrible facts, the nutritious-pap system of feeding children is gaily advocated by intelligent and responsible physicians!

We may now say a few words with regard to the methods by which the conditions which lead up to the deterioration of the teeth and general physique may be combated.

The inspection of school children's teeth by a qualified dental surgeon would be of much use, but my belief in the complete success of such inspection as a means of preventing dental troubles is not very great. The teeth are most liable to be attacked by caries before the child goes to school, and by the age of five many children are amply supplied with carious teeth and septic roots which seriously jeopardise development, if, indeed, they have not already more or less ruined the constitution. Thus it is that the natural method of combating the troubles will always remain the

most important. Mothers ought to know or learn how to rear, and more especially to feed, their children. A mother's intention or ideal nowadays is to avoid giving her child any food which it will be unable to digest, and so it is kept on what is essentially a milk diet for years after it should nave been able to eat practically anything. Unfortunately this ideal is often apparently encouraged by the medical practitioner. When he is consulted with regard to digestive troubles he almost invariably tells his patient to stop eating this or that food. He seldom tells the patient how to strengthen the digestion so as to be able to eat the foods which were found to disagree. Naturally the patient wants to eat what he likes, and some time or other does so; but nothing having been done to increase his digestive capabilities, the eating of the forbidden food leaves him worse than ever. This process of forbidding articles of diet while nothing is really done to strengthen the digestion often gets carried further and further, until the miserable patient is limited to little more than bread-crumbs, boiled fish and milk.

Almost every day we have thrust upon our attention some new extract of beef or some predigested or malted preparation, or some proprietary food imitating all the disadvantages of milk. It should be impressed upon everyone that all these highly assimilable preparations are most dangerous, in that they are sure to leave a small residue in the intestine which is bound sooner or later to ferment and give rise to ptomaines and other highly poisonous products. Unless such foods are taken with a large amount of chemically inert matter, such as certain forms of cellulose which will cause a regular, at least, daily, evacuation of the bowels, they should only be taken after having had the advice both of a consulting physician and a dental surgeon. Physical training and gymnastic exercises have been advocated as a means of preventing physical deterioration, but until the body is properly nourished and the diseases which cause physical degeneration have been eradicated, they will be of little avail. Moreover, as is writ large in Fletcher's valuable collection and epitome of some contributions to the subject,* "Do right in the feeding of your body and an irresistible desire for physical exercise will follow as a matter of course."

Above all, it is necessary that there should be something approaching unanimity of opinion among the members of the medical and dental professions. If doctors differ, how can we blame parents for ignorance? Many mothers are anxious to learn, and take all reasonable trouble to do what is right; but on that very account they fall into error from following erroneous teaching. I believe I am correct in saying that there are the most fundamental differences of opinion in the dental profession as to the principle method to be employed to prevent dental caries. Nor is the medical pro-

* "The A.B.Z. of Our Own Nutrition."

ression unanimous as to the correct methods of feeding children. Some few advocate hard or fibrous food demanding mastication. Others, such as an American authority who has recently written on the subject, contend that children should be allowed nothing but soft food till the age of six, lest the teeth should be injured.

Recent changes of opinion both in the dental and medical professions amply justify the position we have taken up. If what we read is accurate, then, indeed, a revolution would appear to have come over the dental profession. Last year Mr. Hopewell-Smith said: "Ask a hundred per cent. of the members of the British Dental Association to name the two great remedies against the initial commencement of caries of the teeth, and all with one voice will exclaim, 'the use of the tooth-brush and the use of antiseptic mouth washes.'" This year we read in the "Deutal Annual" that "interest has been aroused by iconoclastic opinions ventilated in medical periodicals as to the efficacy of tooth-powders and the artificial operation of brushing the teeth and gums. There has been a remarkable consensus of opinion as to the superiority of early mastication, the use of hard and resisting food, and the general exercise of the jaw muscles. . . . . as compared with soft feeding and artificial cleansing. . . doubt it converts to a new truth are so speedily got unless both the older beliefs are hopelessly insufficient and the new ones are obviously in accord with known facts.

Surely the time has come when we might advocate something which would really prevent caries of the teeth and those other diseases which are at present doing so much to ruin the national physique. We must not be misled or discouraged by those who in spite of the most convincing evidence still maintain that the cause of the prevalence of dental caries has yet to be discovered. Dental caries is preventable, and we know enough to explain how this may easily be done. We know also quite enough of the physiology of digestion to warrant us in the emphatic condemnation of the pap system of feeding children.*

In conclusion, I would remind you that it is not only a dental question, it is not only a medical question, it is not only a national question, but it is probably the most important of all questions affecting the physical well-being of humanity throughout the length and breadth of the civilised world.

DISCUSSION.

(Which the Chairman announced would be taken jointly upon the three Papers last read.)

Mr. W. B. Paterson said it seemed to him a great pity that so much good work should be wasted. He thought it would be well if Dr. Sim Wallace sat upon the Sub-Committee of the Board known as

* "Observations on Mastication," by Harry Campbell. *Lancet*, July 11, 1895, and August 8, 1903.

the Hygiene Committee. With his assistance something might be done, and perhaps that would be better than discussing his Paper at that meeting. It should be remembered that the Physical Deterioration Committee of the Privy Council had accepted two of the Association's suggestions, namely, the teaching of dental hygiene in schools, and dental inspection. The third suggestion, a dental survey, had not been accepted. The Association had made a dental survey of a sort, and had sent to the Privy Council the results of a survey of 10,000 children. No other body had produced such a survey as that. It seemed to him that the Association was the proper body to see that something was done. The Privy Council could not do it; they had made their report and left it to the public to act upon. The Association ought to lead in the matter, and it seemed to him that the Committee and the Board, with the approval of the Association, might do a very great deal in pushing forward the work. The Board and Committee might see that information was disseminated throughout the schools, which could be done with little expenditure, and some suggestions for a more extensive dental inspection might be offered to the Privy Council.

The President said that Mr. Paterson had mentioned the most valuable results that had followed from Mr. Dolamore's appearance before the Commission, and he thought Mr. Dolamore might say a few words on the subject.

Mr. W. H. Dolamore did not know that he could add anything to what had already been published. As a matter of fact, the Privy Council Committee did suggest the establishment of a Survey Department. He took it that under that head they would, if they saw fit, and possibly if the Association made representations, naturally include a survey of the condition of the teeth. When he urged the appointment of paid dentists, he was immediately met by the remark that the ratepayers would not stand it. The Committee as a whole, he thought, would have reported very strongly in favour of paid dentists, and they had gone a long way in putting forward the mild suggestion that they had done. It did not rest with them. They stated that they thought it desirable, and that was practically all that could be expected from the Commission. It was fortunate in a way that it backed up the report of an inter-Departmental Committee of the Army and Navy which had been sent into the Education Board. After all, the question was how to get at the Educational Authority? They were the people that had to be moved. It might not be an opportune moment to attempt to move them, they might want a little breathing space; but, naturally, if they did not take the steps which it was hoped they would take, the Association would endeavour to express to them in some definite way their desire that they should move in the required direction. Like many other reports, the report might be shelved, but it was a report that would be referred to over and over

again. For instance, in London only recently the question of the milk supply had been raised, and the answer was that it is necessary to wait until the report was issued. The whole thing would come up again and again, and he did think the Association was very fortunate to have been asked to appear before the Commission, and to have had two of its recommendations accepted by them.

Mr. H. J. Miller (Glasgow) said a great deal had been heard about the necessity of getting the State to take up the matter of providing dental service for those who were unable to pay the ordinary fee of a dental practitioner. He thought a point that required a little consideration was, as to which Board or authority should be approached on the subject. There were Government Boards and Councils, Local Authorities, Parish Councils, and Boards of Guardians, and it would be a very profitable subject to consider which authority could best carry out the work. In Scotland it was possible that by approaching Local Boards the matter might be taken up and worked out experimentally, and that then other localities would follow suit. Perhaps the County Councils, or School Boards, or Municipal Councils would take the matter up. Mr. Dolamore had referred to the question of the supply of milk, and it might be interesting to some present to know that the Corporation of Glasgow had opened a depot for the supply of sterilised milk for the purpose of feeding infants. The milk was supplied in aseptic sealed bottles, and in just sufficient quantity required for a meal. With regard to the dental education of the public, that was a field in which the Association might do a tremendous amount of good by sending communications to popular magazines on the care of the teeth. At present the average individual received knowledge of the proper feeding of infants from some advertisement of Mellin's Food, with a photo of a child that never tasted anything else, and it was no wonder that the infant never smiled again. Very frequently he had heard people say that they could not obtain information. The dentist who charged a guinea for a consultation could hardly be expected to give two or three hours' instruction to his patient. Even in the upper and middle classes deplorable ignorance exists as to the proper care of the teeth.

Mr. Parrott (Birmingham) emphasised the necessity of avoiding biscuits, which, in his opinion, were exceptionally detrimental to the teeth.

Mr. William Fisk desired to say a word or two on what was being done for Poor Law children in England and Wales. The total Poor Law population of school age (3 to 14) up to January 1, 1904, was 37,566, divided into children in parish schools, district schools, and workhouse schools, and including those children who were living in workhouses, but attending elementary schools. For that number of children forty-six dental officers had already been appointed. With regard to elementary schools, which had a population of 6,000,000, practically nothing was done for that vast number by

the school authorities. Under the new Education Act County Councils had the power to allocate a certain sum of money for dental service, if they so wished, and he thought the Association might very well bring its influence to bear on the County Councils in this matter. There was a general feeling in the country that the laws of health should be taught in the schools, and that dental hygiene should be incorporated with it. Although not in the Code, the educational authorities, i.e., the County Councils, Urban and District Councils, &c., had power to include this subject of general hygiene as one of the subjects to be taught in the schools, and here, again, the Association might influence the authorities. It might be possible for each county to pay a small sum for a lecturer to visit the schools in its particular area and give instruction in dental hygiene. Some few months ago, when the report of the Royal Commission on Physical Training (Scotland) was published, he received a shock on seeing that the representatives of the dental profession in Scotland had not contributed to the evidence. He was told that this was owing to a misunderstanding, but he earnestly hoped that the dental profession in Scotland would take some interest in the question of dental supervision. He would suggest that the Local Government Board, Scotland, might be approached, and he was sure that Dr. Mackenzie, the Medical Inspector, had every sympathy with the movement, and would do what he possibly could to help.—"British Medical Journal."

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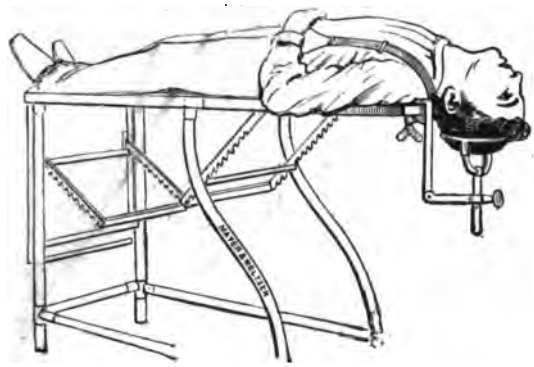

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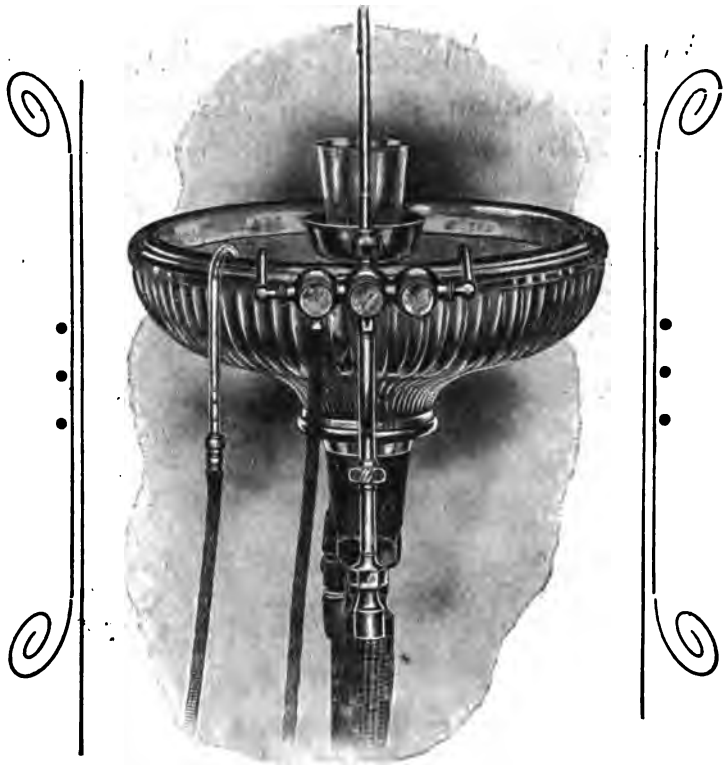

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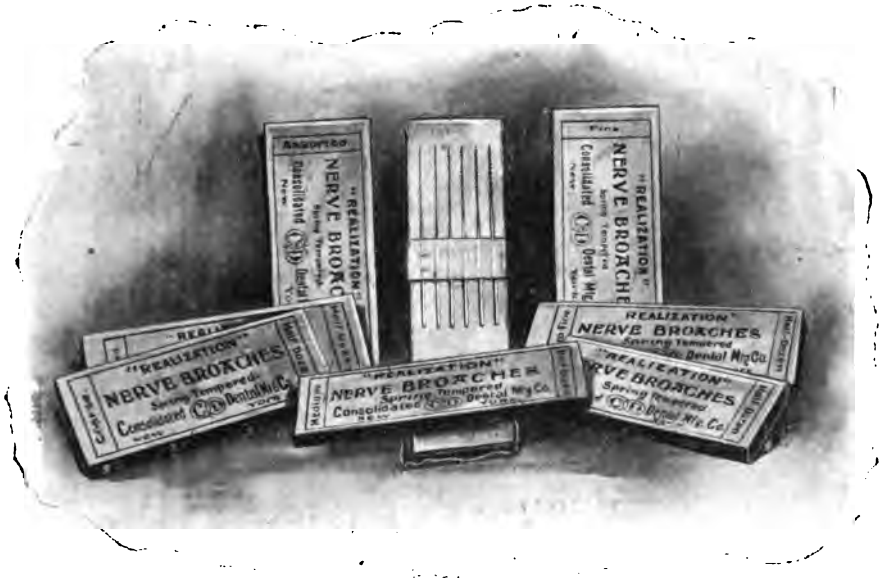

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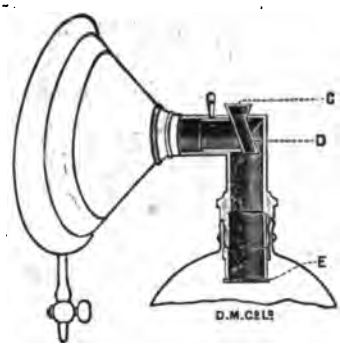

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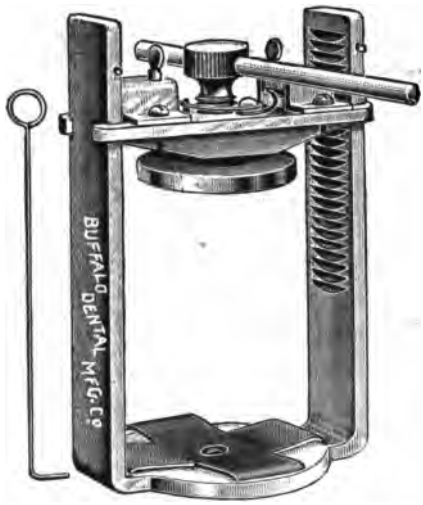

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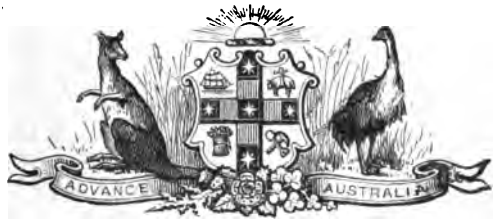

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Journal ...

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EDITED BY JOHN ILIFFE.

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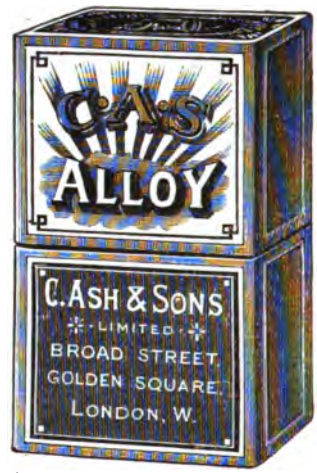

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] MARCH 31, 1905. [No. 3.

EDITORIAL.

Once again the Session at the Australian College of Dentistry and the Melbourne Dental Hospital has opened very auspiciously—on the 2nd of this month, now ended. We have the pleasure of recording an increase in the number of students over those who went through their studies last session. This year we commence our work with seventy-seven students on the roll, as against sixty-six last year—a condition of affairs which can be regarded as satisfactory from many points of view, one of which is, the institution has not lost its prestige or popularity, but it would seem that affiliation with the University has given the College an upward impulse towards success in its usefulness as a teaching centre. Again, it would appear that the students are not afraid of hard work, for the affiliation has increased not only the number of subjects in the curriculum, but has enlarged the scope of their requirements. If the work has been increased, the reward and distinction on gaining the University degree share a similar greatness, while the privilege gained of being recognised in the United Kingdom cannot be fully gauged for several years to come.

What we have to do, not only during the present session, but during the succeeding ones, is to live up to the high-water mark already attained, a position of which our teaching staff is fully cognisant, and which they are prepared to carry out. This position assured, we rely on the cordial co-operation of our students, when success will crown the work of both teacher and taught.

It would appear, therefore, that here in Victoria we are not in the same position as the profession is in the Old Country, where Mr. G. W. Bateman, L.D.S. Eng., in his valedictory address to the Metropolitan Branch of the British Dental Association, held at Guy's Hospital in January this year, in speaking on the necessity of more devoted attention to the section "Dental Mechanics," quotes an adjourned discussion on the subject moved by Mr. Mathieson:—"'That, although the importance of a thorough training in mechanical dentistry cannot be over-estimated, it was not considered desirable that a student should spend three years exclusively over mechanical dentistry, as such a procedure would tend to extend the curriculum from four to five years; at the same time it was deemed desirable to urge upon all dental schools the importance of a searching examination in dental mechanics before being allowed to commence hospital work.' I give the resolution verbatim, because I cannot help thinking it is, after all, a wise conclusion at which to arrive, especially at this period of dental history, for two main reasons, in the first place, the number of young men coming forward to qualify as dental surgeons is not sufficient to meet the demand, and secondly, it is quite possible that to extend the time from four to five years would deter many from joining our ranks, and also add considerably to the expense of a dental education, which to many would prove a very serious matter. It goes without saying, therefore, that what we most of all desire is that this very important part of our vocation should be well and thoroughly taught, whether it be in the workroom of a private practitioner, or in the mechanical laboratory of a dental school: the latter, taking all things into consideration, probably forms the best solution of the difficulty. It has occurred to the minds of some that one of the most effective means towards improving the present state of things would be to have the subject discussed by all the Branches, with a view of formulating a syllabus somewhat on the lines of the one issued by the North Midland Branch, and which would, in due course, be approved of by the Representative Board and afterwards circulated by them to all practitioners connected with the Association. Such a procedure, I take it, would not only act as a guide in teaching, but also prove exceedingly useful to those

members who desire to do what is best for the pupils they have undertaken to instruct. Again, the matter, with considerable advantage, might be fully discussed in the pages of the Journal."

The main point in this excerpt to which we desire to call attention being "the number of young men coming forward to qualify as dental surgeons is not sufficient to meet the demand"—a remark which seems a little surprising should be made in the world's metropolis.

In looking over both the valedictory address of the retiring President and the address of the incoming President of the Metropolitan Branch, one cannot fail to realise that two very important subjects —"The Teaching of Mechanical Dentistry" and "The Physical Deterioration of the Teeth of the Nation"—have occupied their attention to a very great and important extent. Mr. W. H. Woodruff, L.D.S.E., says:—"Personally, I feel that the instruction given by private practitioners must often fall sadly short of what it should be, and indeed, we shall all admit, I suppose, that the man who is busily occupied in the practice of his profession, and more especially the surgical portion of it, is not in a position to give that amount of care and supervision to his pupils that he ought, and consequently it resolves itself into the student receiving the instruction from a mechanic who may or may not be thoroughly competent, and who even at the best may not always feel disposed to impart all he knows, or give anything approaching systematic teaching. I have grave doubts myself if the thorough teaching of this all-important subject can be carried through in the private laboratory, except in a very few instances—one here and there—but to be successfully accomplished we should see to it that properly-equipped schools be established in all large centres, so that, at any rate, the proper methods of doing things may be open to all our intending students, and that they may thus cull the knowledge, not only of one practitioner, but the ways and methods of many, and thus attain a thorough insight and mastery of the subject. What I have just said suggests another difficulty, which, if it does not face us now, must very soon do so. If, as I have stated, the qualified and busy practitioner has no time to teach his pupils this subject, much less to do his own mechanical work, how are his requirements to be satisfied, and who are to be the mechanics which every dentist finds imperative?"

We make these excerpts because they are a part of the addresses of representative gentlemen in London, and they should go far to tell us the contemporary thought of many minds crystallised into the speech of one or two. If these two important sections of investigation and teaching mean so much to the profession and its leaders in the old land, where systematic dental teaching has gone on and held its own for so many years, surely it will help us to discuss them as well as the means whereby we—we think at the College matters are on the right track for "Dental Mechanics"—can make the teaching more thorough, and at the same time we trust to have dropped a hint or two whereby some member of the profession will help forward the cause of "saving the teeth of the nation."

DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Board was held on Friday evening, the 24th of March, 1905, at the Board's offices, 454 Collins Street, Melbourne.

In the unavoidable absence of the President, the chair was occupied by Mr. W. Witt, J.P. There were also present Dr. Mullen, Mr. Clarke and Mr. McGregor.

Apologies regretting their inability to attend were received from the President, Mr. Iliffe, and Dr. Merrill.

The minutes of the previous meeting were duly read and confirmed.

Appointment of the President and of Hon Treasurer.

Dr. J. W. Springthorpe, M.A., M.D., was unanimously re-appointed President of the Board for the ensuing twelve months, and Mr. W. Witt, J.P., was unanimously re-appointed Hon. Treasurer.

Interstate Courtesies.

The Registrars of various State Dental Boards of the Commonwealth of Australia wrote to acknowledge receipt of the Registrar's letters advising them of the recognition by the General Medical Council of the United Kingdom of the L.D.S., Victoria. Mr. T. Rodway, L.D.S., on behalf of the Tasmanian Board, wrote as follows:—

Hobart, Mar. 12, 1905.

Dear Mr. Joske,—On behalf of the Dental Board of Tasmania I forward congratulations on the news that the General Medical Council have decided to recognise the Victorian Licentiate as giving right to Imperial registration. It gives our Board all the more gratification in that in the past they have as far as lay in their power followed the Victorian Board's advice wherever their Act permitted, hoping some day to be able to look to Victoria as at least their tutelary head.—Yours faithfully,

T. Rodway, Hon. Sec.

A "Vested Rights" Student.

James Martin Ballantyne, of High Street, Prahran, forwarded his articles of apprenticeship with J. M. N. Molloy, dentist, for four years from the 24th day of June, 1895, and applied to be allowed to enter for the "sine curriculo" examination. The articles in question had been previously registered by the Board, and Mr. Molloy forwarded a declaration that they had been duly complied with. Mr. Ballantyne's application was granted, and his name placed on the register of students entitled to enter for the examination.

Articles of Apprenticeship.

The following articles of apprenticeship were approved by the Board, and copies filed with the Registrar:—

J. M. O'Donnell, with J. H. Knight—Four years.

J. F. Woolcott, with J. N. Woolcott—Three years.

J. W. O. Smith, with J. W. Smith—Four years.

F. M. Bradshaw, with R. J. B. Yule, D.D.S.—Three years.

J. D. Keenan, with the Australian College of Dentistry.

J. A. Nattrass, with the Australian College of Dentistry.

C. A. McCleery, with the Australian College of Dentistry.

Miss C. M. Murrell, with the Australian College of Dentistry.

Correspondence.

A letter from a student who did not pass in Physics at Matriculation, enquiring whether he could qualify for the B.D.S. degree by taking that subject during his course in dentistry, was referred to the Faculty of Dentistry of the University. A large amount of general correspondence was dealt with and minuted for reply.

The Board adjourned.

THE ODONTOLOGICAL SOCIETY OF VICTORIA.

The ordinary monthly meeting of this Society was held in the Rooms, Austral Buildings, 117 Collins Street, on Tuesday, Mar. 28th, at 8 p.m.

The President, Mr. T. F. W. Hall, M.A.C.D., occupied the chair, and there was a good attendance of members.

The minutes of the previous meeting were read and confirmed.

Nomination for Membership.

The nomination of Arthur J. Prytz, D.D.S., was proposed by the Hon. Sec. and seconded by Mr. Hall, M.A.C.D.

Election of Member.

Mr. Iliffe moved, and Mr. Hall seconded, that the Hon. Sec. act as scrutineer.—Carried.

Mr. G. H. Fetherstone, dentist, of Tatura, was unanimously elected a member.

Notice of Motion.

Formal notice of motion having been given at the previous meeting, it was moved by Mr. Iliffe, and seconded by Mr. Price, that the following words in Rule 6 be omitted: "And if the subscription in arrear be not paid before October 1st following, he shall cease to be a member." Carried unanimously.

Casual Communications.

Under this heading the President introduced a subject, some ideas about which had been smouldering in his brain, and he knew others shared the same ideas. He alluded to the deplorable and unsatisfactory state of a large number of the teeth of children at the school age in this island continent of ours, for which various causes are assigned. Yet there were no reliable facts recorded. A reference to such data would help the dentist, and would materially help the general health of the community, if greater attention could be drawn to the present state of things, and if parents and those in charge of children could be impressed with the great necessity that the "care of the teeth" should form a part of the ordinary instruction. There was no doubt sound teeth meant good health. They all knew that, and he would like to hear the views of members on the subject, as he thought the Odontological Society would be able

to investigate the matter more efficiently than it was possible for any dentist in his private capacity.

An animated discussion followed, each speaker being enthusiastic in his expressions concerning the high aim of the President in a truly national question

On the motion of Mr. Iliffe, seconded by Mr. Wilkinson, the following were elected a provisional committee to draw up a scheme to forward such a movement to examine, chart and report upon the "unsatisfactory condition of school children's teeth, and to present the same at the next meeting of the Society":—Messrs. T. F. W. Hall, R. A. Cooper, John Iliffe, W. A. E. Graham, P. Wilkinson, L. Price, Alec. L. Elvins (Hon. Sec.).

The newly-elected President for the session of 1905 then read his

INAUGURAL ADDRESS:

Gentlemen,—Since you have done me the very great honour to elect me President of this Society, of which I feel very proud, I have discovered to my dismay that I am expected to deliver what our secretary grandly describes as a Presidential address. It sounds very formidable, and I must ask your kind indulgence when you discover, as you undoubtedly soon will, that this is not at all the kind of address that you expected. I propose, gentlemen, to-night, to briefly review some of the improved methods that have come into popular use in dentistry during the past few years. Many of them, I am aware, have been in use, but during the past year some of these methods have been more widely spread. The first thing that I will mention is, the great use we are making of electricity. An electric motor for the dental engine is quite common, yet I venture to say beautiful work is still done by the foot engine, which, even in my time, was looked on as a new idea. Yet what a marvellous saving of energy, time, and patience is found in the electric motor! Who would go back to the foot engine after once using a motor? Then electricity can be used for the hot air syringe, which gives a warm blast of air that doesn't hurt and is always ready, clean and effective. A copper point root drier is also a great aid, when heated by electricity. The heat can be regulated, or applied gradually, and the points being very fine, will enter any canal. The electric cautery is also a very useful instrument to

have at hand in removing small growths, or in removing overhanging flaps of gum that are so annoying in crown work. The cautery soon makes a dentist wonder how he got on without it. The electric mouth lamp, used from a resistance, or by a small storage battery, is useful, but not, I think, so indispensable as some of the other instruments, but decay and dead teeth can be diagnosed with ease by its use.

To keep water at a given temperature for syringing cavities is now easily done with electricity.

Gold is also annealed, and of this I think I may say it is a revelation to the dentist who has never used the electric annealer. The gold is softer and of a more uniform texture. Guttapercha can also be softened on the top of an annealer, and if it is necessary or desirable to set a crown or bridge with a preparation of guttapercha, the annealer will keep the crown or bridge at the right temperature until ready to set.

A small motor lathe is now of great assistance in the surgery, or workshop, and when in the former saves many journeys to and fro.

The little crown furnace is quite perfect, until the resistance burns out. Of all dental electric fixings this alone seems to get out of order more rapidly than anything else.

To radiate heat in winter, or to cool the air with a fan in summer, electricity is just the thing, and for the dentist is a very great help. The installation of the continuous current a few years ago, marked a new era in the dental history of our city.

In anæsthesia there is nothing very new. The marvellous spread in the use of hypodermic injections has, I think, reached its climax, and a reaction is setting in against the wholesale use of this popular but unscientific method. Some terrible cases are reported to have occurred through the use of septic needles, as unless very great care is taken, the danger is great. The amount of cocaine in these solutions is now rarely more than one or one and a half per as against the five per cent. solutions and over that the method commenced with.

Anaesthesia by N_2O is gaining ground; so far it is the safest and best anaesthetic for dental work, and given by the nasal inhaler, a slight modification on the old method, is greatly supplanting chloroform or ether. N_2O given through the nose seems to

have the desired effect in nearly every case of prolonging anaesthesia. Many prominent dentists hold that it is criminal to use any other general anaesthetic than gas for dental operations.

Ethyl chloride as a general anaesthetic is gaining ground here. The effect is speedy, the recovery good; the anaesthesia lasts about two minutes. It is a very portable apparatus. The Lobjois inhaler seems to be the most used, but dentists generally are shy of using it. It will prove a great advantage to country dentists, where a regular supply of gas is uncertain. The patient maintains a very good colour during the administration, and recovers quickly, but seems to suffer from after-shock.

Perhaps I ought not to mention anaesthesia by blue light. So far as I know, no one has used it here. I know of one of our members who intends to try it, when we shall probably hear more about it. At any rate, it is a very new thing. Pressure anaesthesia, by the aid of adrenalin and cocaine is now quite extensively used for the removal of the dental pulp, Patients babble about it as if they know all about it, and state that they never have arsenic used on their teeth, as it has quite gone out.

Adrenalin is now one of the foremost drugs in the dental cabinet, In addition to its styptic properties, it has an anæsthetic effect. It is sometimes used instead of the rubber dam. In some mouths it is difficult to apply dam for cervical cavities. With the aid of adrenol moisture can be prevented from oozing from the margins, and gold can be inserted in favourable cases, keeping the mouth free from saliva, by the ejector, or damps on the ducts, and the inevitable pads of wool.

In gold crown work, the apparatus for making seamless gold crowns is being widely used, although it entails a little more work and fitting. Yet the result is so pleasing that no one minds the little extra trouble.

Mechanical methods generally are improving rapidly, The busy man, who does not belong to a society, is in danger of being left behind. The ease with which a platina post can be fixed to a tooth with porcelain body in the electric furnace is very surprising. It is quicker than soldering.

Inlay work is progressing slowly. After all, the great thing is to save the tooth, and only certain cavities are suitable. Gold will

remain in favour for crown cavities in molars, when something better than amalgam is required, for many years to come, unless the ideal filling is discovered.

Aluminium has lately come to the front as a base for complete upper cases, when properly swayed up on Spence's metal. It seems very satisfactory when kept from contact with metals. The difficulty of soldering seems to prohibit its use in partial cases.

Crown and bridge work is still in favour, but the tendency is in the direction of removable bridges. There is still the great difficulty of keeping a bridge in the mouth clean. Cements and gutta percha alike are absorbents, and the preparation of the tooth or root generally leaves much to be desired, and a mass of evil-smelling cement, held around a tooth by a badly fitting gold crown, containing the whole of the oral cavity, is often brought under our notice. It is very difficult to find cases suitable for crown and bridge work, and in too many instances they are fitted in mouths that are more suitable for a well-fitting plate.

Improved methods of vulcanite work have been tried, such as vulcanising between metal plates, but the usual method still holds good, and vulcanite, the great object of industry of the cheap dentist, still holds supreme sway.

Vulcanite has been a great boon to the human race, and also a great curse. I am satisfied that millions of sound teeth are annually sacrificed, simply because they can be easily and profitably (to the dentist) replaced on vulcanite, and on the whole the blessing considerably outweighs the curse.

In gold and metal plate work the method of placing the die and counter die between a powerful press or swager is an advance on the old style of striking up with a heavy hammer, and the use of a blowpipe with a small foot-bellows or a cylinder of compressed air is an advantage over the mouth blowpipe. I know of a dentist here, who, renowned for his prowess as a hard blower, in his youth, could melt a penny with the mouth blowpipe—a feat that takes some doing.

Many of the arts connected with dentistry seem to be dying out, such as the manufacture of alloys for amalgam. This is readily understood. When we view the tremendous advance in amalgams, due to Dr. Black and others, it is well nigh impossible to attain the

perfection found in the specially manufactured article. Even solder, and gold plate, and wire, etc., are now extensively procured from special manufacturers—very largely so, I understand, amongst our American brethren. Such luxurious materal as platina and gold plate—that is, gold on one side, and platina on the other—was not in general use a few years ago. Iridio-platinum wire is another useful article comparatively new

Generally speaking, there has been a great advance in the methods of the dental art, and the few I have outlined may individually be as old as the hills, yet I venture to say all are seldom found in the same office, and the question I have endeavoured to provoke to-night is, are they all good methods?

Being up to date is apparently the great desire of all our go-ahead young men. What is being up to date? I have come to the conclusion that the most important thing is the man behind method, be it old or new.

Mr. Iliffe proposed a hearty vote of thanks, and said that if the address to which he had listened with such pleasure had merely been jotted down in a fragmentary manner, as Mr. Hall said, then it was to be regretted that more of the members did not come before the Society and do likewise. On behalf of the Society, he heartily thanked Mr. Hall for his excellent address.

Mr. Cooper seconded, Mr. White supported, and the meeting carried the motion with acclamation.

Mr. Hall responded in his characteristic grace of speech, and the meeting adjourned.

ALEC. L. ELVINS, Hon. Sec.

DENUDED NECKS OF TEETH.—If the patient is still young enough, say under forty, you can coax the gum to grow and recover the root in part, by great care and stimulating it gently with iodin and zinc oxid with ten per cent. resorcin painted on it at intervals of one to two weeks. This is very tedious, and requires much patience. The remedies must be alternated, and changed about every six weeks. During the process of building gum-tissue, the patient must use a badger brush and a dentifrice composed of one-part white castile soap and nine parts precipitated chalk. I occasionally add twenty grains quillaia saponaria to a ten-ounce prescription.—Dr. A. W. Harlan, "Items of Interest."

COLLEGE NOTES.

DENTAL STUDENTS' SOCIETY.

Since the 2nd of March the Melbourne Dental Hospital has presented a very busy appearance. The number of students at hospital practice totals about 35, and fortunately there is no lack of patients. All the available chairs are in use every morning.

Since the session opened, the students have had the privilege of witnessing many demonstrations of the administration and use of Somnoform as an anæsthetic in the place of nitrous oxide. So far in the administration of this, one of the latest anæsthetics at the Hospital, the results have been generally successful, and it would appear as though Somnoform will in time take the place of nitrous oxide as a dental anæsthetic to a very large extent, even if not altogether.

The Annual Commencement of the Melbourne University is set down to take place on Saturday, April 8th. The medical students have very kindly requested the dental students to join them in their inauguration of the proceedings on that auspicious occasion. We understand that an additional verse is being prepared for the University Anthem relating to the Dental School. On Friday, April 7th, there will be a torchlight procession by the University students, including the dental students, from the University to Prince's Court. On arrival there, all the students will give a concert from the Cafe Chantant.

During the past month a cricket match was played between the medical practitioners and the dental practitioners and students combined. The match was played on the half-time system, and resulted in the Dentals having the best of the deal. Unfortunately the scores are not available.

The dental students will kindly note that the annual meeting of the Dental Students' Society will be held in the Lecture Hall at the College, 191 Lonsdale Street, on Friday, March 31st, at 8 p.m., and a full attendance of all, both past and present, students of the Australian College of Dentistry is requested. It is hoped that the students will take an active interest in the Society and its doings. There can be no question that this Society fills a much-felt want, and helps forward all the students. On the whole we are looking forward to a very prosperous year.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

A special Board meeting was held on Friday, February 24th, at Board Room, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson) took the chair at 5.30 p.m., there being also present Dr. Palmer, Dr. Peach, Dr. Kirkland, Messrs. C. Hall, C. C. Marshall, J. Stinson, and G. Norton Russell.

The Registrar read the minutes of the last meeting dealing with present business before the Board.

The President invited suggestions from each individual member of the Board as to the way the pass percentage should be marked for this examination.

After each member had expressed his views it was moved by Dr. Peach, seconded by Mr. Hall, that the percentage for pass be made on the papers and subjects divided in two sections, practical and theoretical. On the motion being put to the meeting it was lost by 2 to 5, Dr. Peach and Mr. Hall voting for it.

It was moved by Mr. Stinson, seconded by Mr. C. C. Marshall, that each paper and subject be divided separately for pass percentage. This motion was carried by 5 to 2.

It was moved by Mr. Hall, seconded by Dr. Peach, that papers be marked for pass percentage after examiners' report had been received. This motion was lost by 2 to 5.

The marks for the Operative paper were then discussed, and it was moved by Dr. Peach, seconded by Mr. Hall, that 50 per cent. be the marks to be obtained in operative work, both for practical and paper examination. Carried unanimously.

The paper on Anatomy was discussed, and it was moved by Mr. Hall, seconded by Dr. Peach, that 25 per cent. be the marks to be obtained in anatomy.

An amendment was moved by Dr. Kirkland, seconded by Mr. Marshall, that 40 per cent. be the marks to be obtained. The amendment was put and carried by 5 to 2, Dr. Peach and Mr. Hall being against.

The paper on Metallurgy was then discussed, and it was moved by Mr. Marshall, seconded by Mr. Stinson, that 50 per cent. be the marks to be obtained in metallurgy.

An amendment was moved by Dr. Peach, and seconded by Mr. Hall, that 25 per cent. be the marks to be obtained. The amendment was put and lost by 2 to 5—Dr. Peach and Mr. Hall for.

The motion was put and carried by 5 to 3—Dr. Peach, Mr. Hall, and Mr. Hodgson against.

The paper on Pathology and Therapeutics was next discussed, and it was moved by Mr. Marshall that 75 per cent. be the marks to be obtained on this paper, but there was no seconder. It was further moved by Dr. Kirkland, and seconded by Dr. Palmer, that 50 per cent. be the marks to be obtained. An amendment was moved by Mr. Hall, seconded by Dr. Peach, that 25 per cent. be the marks to be obtained. The amendment was put and lost by 2 to 4, Dr. Peach and Mr. Hall voting for the amendment. The motion was put and carried by 5 to 3—Dr. Peach, Mr. Hall and Mr. Hodgson voting against.

Paper on Physiology.—After due discussion it was moved by Mr. Marshall, and seconded by Dr. Kirkland, that 40 per cent. be the marks to be obtained. An amendment was moved by Dr. Palmer, and seconded by Mr. Stinson, that 50 per cent. be the marks to be obtained. A further amendment was moved by Mr. Hall, and seconded by Dr. Peach, that 25 per cent. be the marks to be obtained. The second amendment was put and lost by 2 to 5—Dr. Peach and Mr. Hall voting for. The first amendment was put and lost by 2 to 5—Dr. Palmer and Mr. Stinson voting for. The motion was put and carried by casting vote of the Chairman, Mr. Stinson, Dr. Palmer, Dr. Peach and Mr. Hall voting against.

The paper on Materia Medica being next on the list, it was moved by Mr. Marshall that 60 per cent. be the marks to be obtained in Materia Medica, but there being no seconder the motion lapsed. It was moved by Mr. Stinson, seconded by Dr. Palmer, that 50 per cent. be the marks to be obtained. An amendment was moved by Dr. Peach, seconded by Mr. Hall, that 25 per cent. be the marks to be obtained. The amendment was put and lost

by 2 to 5, Dr. Peach and Mr. Hall voting for. The motion was put and carried by 5 to 3, Mr. Hodgson, Dr. Peach and Mr. Hall voting against.

Re Post Mortem.—It was moved by Dr. Palmer, seconded by Mr. Marshall, that the matter of post mortem be considered after examiners' report had been received.

The President remarked from the chair that "if members persisted in fixing so high a percentage for pass for theoretical work for this examination, practically equal to the University, they would be committing an unjust action towards the students."

Meeting closed.

HORACE TAYLOR, Registrar.

The monthly meeting of the Board was held on Monday, February 27th, at Board Rooms, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson) took the chair at 8 o'clock p.m. The other members present were Dr. Palmer, Dr. Kirkland, Dr. Peach, Mr. Hall, Mr. Stinson, Mr. Marshall and Mr. G. Norton Russell.

The minutes of the previous meeting were read and confirmed. The bank pass-book was examined and found to be correct, and accounts were passed for payment.

The following applicants for registration were registered:—Mrs. Adelaide Mary Bailey, Petersham Road, Marrickville; Albert Edward Vesper, 64 Juliette Road, Marrickville.

Several other applicants were postponed for further information.

The motion standing in the name of Dr. Palmer being seconded by Mr. Hall, "That resolutions as framed on Jan. 25 re candidates for registration be rescinded, and bye-law to same effect be drawn up for gazetting," was carried unanimously.

The motion standing in the name of Mr. C. C. Marshall, that an inspector be appointed, was withdrawn at the request of the mover.

Correspondence and replies were dealt with.

The Registrar read a letter dated February 7th to the Inspector-General of Police re the death of Mrs. Anderson during operation under narcotile given by one Edward Byrnes, also correspondence from the Inspector-General in reply, and other matters to the police on the subject.

The Solicitor for the Board having dealt with this correspondence, his report was forwarded to the Board for their consideration, and, after discussion, it was moved by Dr. Peach, seconded by Mr. Marshall, that the President and the Registrar wait upon the Attorney-General and lay all papers and reports before him for his consideration.

Notice of motion was given by Mr. Marshall that section 34 of Rules and Regulations, second and third clauses, be rescinded and the following clause substituted:—

"The licence to practise of a legally qualified Dental Board or other body appointed by this Board, whose certificate is granted after not less than four years' study of dentistry and satisfactory examination in the following subjects:—Anatomy, Physiology, Histology, Bacteriology, Pathology, Therapeutics, Chemistry and Metallurgy, Materia Medica, Operative Dentistry, Prosthetic Dentistry, Hygiene, Orthodontia and Chemistry (inorganic). This section to affect curriculum after 30th June next."

Meeting closed 10.45, p.m.

HORACE TAYLOR, Registrar.

Sydney, February 25th, 1905.

EXAMINATION REPORT.

The first examination under the Dental Board for students desiring to start the profession of dentists in this State has been held at the School of Arts, Pitt Street, Sydney, during the present week, and finished on Friday evening last.

The examiners were Dr. Stanley Rea, D.D.S.; Mr. P. B. Reading, L.D.S. (England); Mr. J. Houghton Bradley, L.D.S. (University of Sydney), and Dr. Stacey, M.D.

The dental members of the Board, consisting of Mr. C. G. Hodgson (President), Dr. Peach, Mr. Hall, and Mr. C. C. Marshall, were in attendance during each session to carry out the Board's wishes.

There were 14 applicants for examination, which comprised both town and country students, who shaped well, and we believe the final results of the examination will reflect credit upon those interested.

Results will be made known in due course.

HORACE TAYLOR, Registrar.

THE UNIVERSITY OF SYDNEY AND THE DENTAL HOSPITAL OF SYDNEY.

New Dental Curriculum at the University.—The new term at the Sydney University marks a considerable advance in the teaching of dentistry and of the status of the dental profession in this State, for the dental curriculum at the University has been extended to four years, and now ends in the degree of Bachelor in Dental Surgery. This course seemed inevitable, in view of the fact that so many American universities confer that degree, and thus attract large numbers of candidates from these shores. The change from the licentiateship to the degree has necessitated a stiffening of the entrance examination, which has now been made identical with the entrance to medicine, science, and engineering. Thus there is no need for the dental student to feel himself in any position inferior to that of his fellow-students. By these changes our University has brought itself into line with the United Kingdom, where a four years' curriculum is obligatory, and with the new University of Birmingham, which grants a bachelor's degree in dentistry. The University curriculum involves a scientific and technical training of a high character. Physics, chemistry, anatomy, and physiology are the scientific subjects upon which dentistry rests, and these are the main subjects of the first two years. Pathology, materia medica, and therapeutics, in so far as these subjects can concern a dentist, make a sort of intermediate group in the third year. In the second and third years to some extent, but in the fourth year exclusively, the practical and special subjects of mechanical and surgical dentistry in their various sub-divisions are taken up; and so from the purely scientific the student passes to the purely practical aspects of his profession. These latter branches have been studied hitherto at the University Dental Hospital, but an amalgamation has now been arranged between the University Dental Hospital and the Dental Hospital of Sydney--the new institution to be known by the latter name. As a considerable amount of what might be called emulation has existed between these hospitals, it is satisfactory to find that a basis for union has been found favourable as well to efficiency as to economy.

—*Sydney Morning Herald.*

TRANSACTIONS OF THE ODONTOLOGICAL SOCIETY OF NEW SOUTH WALES.

The annual meeting of the Odontological Society of New South Wales was held on Monday, the 21st of November, 1904, at 8 p.m., at the Society's Rooms, Hallam's Buildings, Liverpool Street, Hyde Park, Sydney. There was a full attendance. The President, Dr. L. A. Carter, D.D.S., occupied the chair.

The annual Report and Balance Sheet were then read and duly adopted.

SIXTH ANNUAL REPORT

OF

The Odontological Society of New South Wales.

SESSION 1904.

OFFICERS OF THE SOCIETY FOR 1904.

President:
DR. L. A. CARTER.

Vice-President:
MR. P. B. READING, L.D S.

Hon. Secretary:
MR. DONALD SMITH.

Hon. Treasurer:
DR. W. SEPTIMUS HINDER

Council:

DR. A. BURNE.
DR. N. V. POCKLEY.
DR. E. R. MAGNUS.
MR. P. R. PEDLEY.
MR. E. K. SATCHELL
MR. E. READING.
DR. E. DECK.

GENTLEMEN,—Your Council have pleasure in once more presenting their Annual Report of the doings of the Society for your approval.

Our membership still shows a steady increase, and the meetings during the past Session, with one exception, show an increased attendance, together with a corresponding interest in the Society's affairs. The Council have been most regular and consistent in their efforts to promote the welfare of the various movements which have been under their consideration from time to time.

The subjects in our Syllabus this year included—"Inaugural Address," Dr. L. A. Carter; "Narcotile as a General Anaesthetic,"

Mr. E. Blackwell; "A Case of Fracture of the Superior Maxilla," Mr. Philip Reading; "Pulp Capping," Dr. L. A. Carter; "Prosthetic Points," Dr. Magnus, Mr. E. Reading and Dr. Carter; "Retained Deciduous Teeth," Mr. Burrows; "Porcelain Inlay Work," Dr. Basil Jones; "Practical Communications," Mr. E. C. Bryden; "Journal Excerpts," Drs. Burne, Pockley and Deck; "Orthodontia," Dr. Forsyth; "Ash's Inlay Method," Mr. Nichols; "Journal Excerpts," Dr. E. R. Magnus and Mr. T. Soderberg.

The average attendance of members at meetings during the session was 21.

New members joined—4.

Members resigned—2.

The number of members on the roll is now 54.

The individual attendances of Members of Council at meetings were:—Dr. Carter, 8; Mr. P. B. Reading, 8; Dr. Hinder, [illegible]; Mr. Donald Smith, 9; Dr. E. R. Magnus, 8; Dr. Deck, 9; Dr. A. Burne (absent 3 months in America), 5; Dr. Pockley, 8; Dr. E. Reading, 2; Mr. Satchell, 9; Mr. Pedley, 2.

Dr. A. Burne was unanimously appointed our representative at the International Dental Convention at St. Louis.

The Society will doubtless hear an excellent account of his visit later on.

Our President, Dr. L. A. Carter, has been most hospitable and attentive to the social as well as the professional side of his office during the past session, and has earned the good-will of members and the gratitude of the Society.

Nominations have been placed in your hands for the elective offices next year.

It is hoped that during next Session we shall have an increased attendance at our meetings, together with an enthusiastic interest in the Society's doings. The Council wish that new contributors of papers and practical points will come forward next Session so as to vary as much as possible our syllabus.

The thanks of the Council and the Society are tendered to the members who contributed to our programme during this year, and also to those who have sent in donations to our Library and Museum.

(Signed) L. A. Carter, President.

The Odontological Society of New South Wales.

Dr. *Statement of Receipts and Disbursements from 13th November, 1903, to 21st November, 1904.* **Cr.**

RECEIPTS.

	£ s. d.	£ s. d.
To Balance, as per Last Statement ..		44 18 6
,, Fixed Deposit—		
Commercial Banking Co. of Sydney, due 17th April, 1905	50 0 0	
,, Interest Accrued to Date ..	0 17 5	
		50 17 5
,, Subscriptions		72 9 6
		£168 5 5

DISBURSEMENTS.

	£ s. d.	£ s. d.
By Rent Account—		
J. C. Hallam, to 30th June, 1904 ..		58 2 6
,, General Expenses Account—		
Honorary Secretary — Expenses, Stamps, &c.	6 11 0	
Falk Studios	5 15 6	
Miss Jamieson—Typewriting ..	3 18 1	
J. Pounceby	3 8 6	
— Nichols	2 2 0	
Oxford Street Electric Lighting Co.	1 4 0	
Bank Fees and Exchange ..	0 13 7	
		23 12 8
,, Printing and Stationery Account—		
John Andrew & Co.		16 14 3
,, Fixed Deposit Account—		
Additional Amount placed at Fixed Deposit to increase same to £50..		6 6 4
,, Furniture and Fittings Account—		
Bosch, Barthel & Co.		5 16 0
,, Balance –		
Fixed Deposit Commercial Banking Co. of Sydney..	50 0 0	
Interest Accrued to Date	0 17 5	
	50 17 5	
,, Balance at Credit of Current Account—		
Commercial Banking Co. of Sydney.. .. £23 14 4		
Less Cheques Unpresented 16 18 1		
	6 16 3	
		57 13 8
		£168 5 5

Audited and found correct (subject to voucher being produced per list attached).

Sydney, 21st November, 1904.

DAVID FELL, C.A.A., Auditor.

The election of officers for the ensuing year was then proceeded with, nominations being already in the hands of the members. The election resulted as follows:—

President, Mr. P. B. Reading, L.D.S., Eng.; Vice-President, Dr. W. Septimus Hinder; Hon. Sec., Mr. Donald Smith; Hon. Treas., Dr. Deck; Council, Dr. E. R. Magnus, Dr. Pockley, Mr. E. C. Bryden, Dr. A. Burne, Mr. E. K. Satchell, Mr. E. Blackwell and Dr. L. A. Carter.

The retiring President, Dr. L. A. Carter, most hospitably entertained members and visitors at the close of the meeting, and a very enjoyable evening was spent.

DONALD SMITH, Hon Sec.

The first regular meeting of session 1905 of the Odontological Society of New South Wales was held on Monday, 20th March, at 8 p.m., in the Society's Rooms, Hallam's Buildings, Liverpool Street, Hyde Park, Sydney.

There were twenty-four members present.

Mr. P. B. Reading, L.D.S., the newly elected President, in the chair.

The President then read his

INAUGURAL ADDRESS.

Gentlemen,—My first desire on rising to address you is to express my thanks for the high distinction you have conferred on me by electing me President of your Society. I am deeply conscious of the responsibilities of the post, and, whilst accepting the duties with diffidence, I am resolved to spare no effort to make the meetings a success and to further the objects of the Society. With your assistance I shall endeavour to carry out those duties, and trust that the coming session may prove as fruitful in progress as the preceding ones. It does not fall to my lot, on this occasion, in reviewing the development of dental science during the past twelve months, to report from any part of the world the formulation of new ideas or the invention of new appliances, foreshadowing the important modifications in the daily routine of office practice. Announcements fraught with the promise of revolutionary change come but now and then. The long history of civilisation itself is punctuated with periods of com-

parative barrenness, years when humanity takes breath, and instead of seeking yet further conquests in the domain of speculation, for a while occupies its thoughts over the equally important task of proving those already made, discarding such as are worthless, and rearranging the prevailing conditions of life to what are obviously advantageous. Then, when the ground is well trodden, and the last intellectual "sky-scraper" has ceased to provoke the passing wonder of a child, and not till then, somebody rushes out of the ranks with a bomb, destined, when it bursts, to initiate another period of feverish activity and sudden change. In our own department of work we have no cause to complain. The years that have gone have been so prolific in discovery, so many vistas of possibilities have been opened up to us, that for the time at least our hands are full, and we can well afford to await the arrival of the next harbinger of special progress at its own appointed hour. I do not, of course, mean to infer that as a profession we are in the "doldrums." Locally matters have been lively enough during the last twelve months. But for the moment I have my mind on a broader plane, anl I am referring especially to the development of the scientific and material resources essential to the progress of dentistry the wide world over. Whatever has been done in this direction of late naturally found itself reflected in the deliberations of the International Dental Congress held in conjunction with the St. Louis Exhibition in the fall of last year. The Congress deserves more than passing mention, and I doubt not that when Dr. Burne comes to tell us about all the interesting things he saw and heard there, it will win for itself—as the worthy monument it was—a hallowed niche in our memories. That Congress was attended by eminent dentists from all parts of the civilised world, and indeed from some parts that we are apt to consider yet hardly civilised. Dr. Burne went as a delegate, not only of this Society, but also as the representative of the sister Society in Victoria. How strange, by the way, to see him, with an apt quotation from our old friend Hamlet's Ghost on his lips, described in "Cosmos" as hailing from "the State of Victoria New South Wales." Evidently Australian geography is not a strong point in the educational system of the great United States. But let that pass. We may be sure that Dr. Burne, who was only third

amongst the visiting delegates in the order of introduction to the Assembly, worthily maintained the honour of the States from whence he actually came. Many of the delegates attended the Congress with the official recognition of the Governments of their respective countries. France, Austria, Spain, the American Union itself, and, as we would naturally expect, an endless number of the toy republics of South America, were thus officially represented, whilst from Amsterdam came Dr. John E. Grevers, bearing the good wishes of "My Gracious little Queen, Wilhelmina," and thus marking, as he said, the beginning of a great period for Holland.

I cannot, in the course of a brief address, review the wide range of subjects covered by the papers read at St. Louis. To afford to those who have not perused the principal reports of the proceedings, however, some idea of the matter engaging the attention of the various speakers, I might perhaps refer to the prize essay of Professor Miller, entitled "A study of certain questions relating to the pathology of the teeth," and to the four other essays adjudged by the Committee as of such nearly equal merit that they could not refrain from according "honourable mention" to each of them. These essays were:—

1. "The pathology of lime salts in nutrition," by Dr. Fred. C. Rose, of Dresden.

2. "Constitutional causes of tooth decay; erosion, abrasion and discolouration," by Dr. Eugene S. Talbot, of Chicago.

3. "Anatomical changes in the head, face, jaws, and teeth in the evolution of man," also by Dr. Talbot.

4. "The development of the teeth of the sus domesticus," by Zahuarst Max Hirsch, of Halle.

A good deal of time was naturally devoted to a consideration of the more or less unsatisfactory conditions imposed by the United States Government on the members of the Army Dental Corps.

Dr. Jenkins, of Dresden, who now, by the way, devotes himself exclusively in actual practice to work for the various Royalties of Europe, read a delightful paper on the technique of his latest improvement in porcelain bodies.

Somnoform proved a topic of considerable interest. The paper was read by a delegate from Spain, and if one may judge by the ensuing discussion, that, and the chemically allied forms of anæs--

thesia, have received less attention in America than in England or on the Continent of Europe. A pleasing incident of the gathering was the presentation of the copy of an original portrait of Pierre Fourchard and the accompanying revival, in the course of an entertaining paper by Dr. George Vian, of a couple of centuries of French Dental history. The pre-historic mounds of the Mississippi Valley and the dental anatomy of the pre-Indian people who lived amongst them also came in for a due share of recognition; but there I must stop. Dr. Burne will tell us whatever else it is of most interest that we should know.

Coming nearer home, there is no dearth of matter for consideration. During the last five years the status of the dental profession in New South Wales has undergone great changes, which I am glad to say are for the better. For years, of course, this State was the dumping-ground for any person, not qualified in any way, wishing to practise as a dentist. Now all that is altered. We have a Dentists' Act, which at least prevents any persons practising without having first passed an examination. We hope soon, too, to see an Amended Bill passed through Parliament, which I trust will bring the Dentists' Act of this State into line with the Acts in the other States. I should like to see in the Amended Act the following clauses embodied:—

(a) Compulsory preliminary examination.

(b) The Board to consist of dental and medical men only, and the President always to be a dentist.

(c) Examiners to the Board appointed for three years.

(d) Infamous conduct in a professional respect should be strictly defined.

(e) Dummying or covering should be punished by removal from the Register.

(f) A statement of American Colleges acceptable.

(g) An exemption from the jury, as in the English Act.

Apart from legislation, I think we are justified in congratulating ourselves upon a distinct improvement during the last few years in the general trend of practice throughout the State. Twenty years ago you could certainly count on the fingers of both hands the number of dentists in Sydney imbued with an intelligent desire and equipped with the skill and knowledge necessary for the conservation

of teeth. The majority of practitioners in those days were content to go on from year to year extracting teeth that it was possible to save and replacing them with artificial dentures. Ten years ago there were decided indications of a coming change. To-day the mere tooth-puller lives beyond the pale of professional life. True, there was, perhaps, never more flagrant advertising, nor were there ever more ignorant charlatans growing rich out of a credulous public than in New South Wales at the time of the passing of the Dentists' Act, and many years must elapse before they are weeded out. On the other hand, however, the proportion of capable dentists to the population at large is by far greater to-day than it ever was before. It is not too much to say that our ranks are rapidly filling—if indeed they are not now over-full of intelligent and skilful practitioners, some trained in England, some in America, and others who have fought their way to the front through the tortuous channels of the apprenticeship system, and to these we have now to add the products of our own Dental School—indeed, whilst the chances of getting good dentists not so many years ago were comparatively few, a young man entering the ranks of competition to-day may well entertain some apprehension respecting the chances of getting good patients. Fortunately, with the influx of better dentists has come an increase in the amount of dental work requiring to be done—that, too, apart from increased population or any increasing tendency to caries. The supply in this instance created the demand.

Nor is this a movement affecting for good only the teeth of the patients. There is another side of it—the keener intellectual interest involved in the higher grade of work. I often think what a tedious business it must have been to go on day after day, week after week, filling an easy tooth here and there, but for the most part extracting and fitting plates. To-day our first appointment may involve malleting a gold filling, an hour afterwards we are perhaps baking an inlay, later on treating an abscessed root, then shaping a roof for a crown or taking an impression for a bridge. You will agree with me, I think, that this is more to your taste than the eternal round that occupied so large a proportion of the dentist's time some years ago.

Then there are the facilities for modern practice. The author of

a recent magazine article says:—"The famous painting of Napoleon at Austerlitz represents in the popular life a commanding general directing a great battle—but it belongs to the warfare of the past. The artist who aspires to depict the direction of a modern battle must show a man seated at a table on which is spread a large map, dotted with little flags indicating the location of the opposing forces, with an ordinary desk telephone at his elbow—in an adjoining room is a switchboard where operators sit ready to connect the commander with any of the field head-quarters." Well, we have not yet contrived to marshal the forces at our command from the safe isolation of our surgery into the mouth of the opposing patients as they take siestas at home or go about their ordinary avocations, which would perhaps be a parallel case, but picture the man alongside the foot engine, weary and bedewed with perspiration, and yet tied to the treadmill till the last cavity of the day is finished, and contrast that with the soft murmur of the electric motor. Call to mind the great furnace with its walls of fireclay and towering chimney, and compare that with the toy that you could carry away in your hat; of the terrors of working by night with the dark shadows of a gas lamp following your figures as you cautiously felt your way amongst the ivory pillars of the mouth, and against that place the tiny incandescent bulb that flits about like a firefly from tooth to tooth; think of the Rontgen Rays; the use of cocaine in pulp extirpation; the chances of a successful application as an obtundent of sensitive dentine by cataphorisis; the later porcelain bodies, the low-melting metals, variety of depot crowns, the automatic mallets, the local anæsthetics, the new general anæsthetics, and the latest achievements in alloys. At the same time do not forget the vastly improved facilities for obtaining all these things, the immensely larger stocks kept on hand at the dental depots of the city, the probability that samples of the latest contrivances mentioned in the latest dental publication to hand are probably on their way in the hold of some Australian liner ere you see mention of them in print. Bear these things in mind and ask yourselves whether, after all, the modern picture of human destruction is so far ahead of the modern picture of the alleviation of human suffering. With regard to the Dental School, all I need say is that it marks another step in the onward

movement of the profession in this State. Personally I would like to see the course extended from three to four years, thus ensuring recognition of its diplomas and degrees in the United Kingdom

In conclusion, I hope that the Odontological Society will continue to be a boon to individual dentists and the means of raising the status of the profession, and it is for us to remember that its own future depends largely upon the readiness of members to contribute papers and join in free and friendly discussion.

Gentlemen, I thank you again most heartily for the honour you have conferred upon me, and trust during my term of office, and with your help, to be able to carry out my duties with credit to myself and benefit to the Society.

A casual communication was received from Dr. L. A. Carter of a molar root with a fragment of calculus at the apex.

Mr. Haughton Bradley gave a paper with demonstration on a method of open face crowns.*

After a good discussion the members were most hospitably entertained by the President, Mr. P. B. Reading.

DONALD SMITH, Hon. Secy.

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

The 120th monthly meeting of the Dental Board of Western Australia was held in Furnival Chambers, St. George's Terrace, Perth, on the 3rd March, 1905. There were present—Dr. Astles (President) in the chair, Drs. A. J. Bennett, Earle Newton, F. M. Wilkinson and Mr. A. J. Wright.

The minutes of the previous meeting were read and confirmed.

AN APPLICATION FOR REGISTRATION was received from Harry Blakely under the tenth section of the Act, and examiners were thereupon appointed.

LICENSE FEES.—The Registrar reported that forty-two dentists were entitled to have their names retained on the Register.

BREACHES OF THE ACT.—Several alleged breaches of the Dental Act were reported to the Board, and the Registrar was instructed to obtain further information with a view to prosecuting the offenders.

* This paper will appear in our next issue.—(ED.)

THE REGISTRAR.—Owing to increased work and improved office accommodation the salary of the Registrar was increased by £15 per annum.

CORRESPONDENCE was received from the following:—National Bank, E. McGinn, F. C. Hill, A. H. Dick, John Iliffe, C. A. H. McKenzie, C. McKenzie, Dental Board, Adelaide, and the Colonial Secretary.

The bank certificate and Board cash book were produced and accounts were passed for payment.

Dr. Bennett gave notice of motion that he would move at the next meeting of the Board—" That, in view of the lack of uniformity existing in the laws governing the admission of foreign or foreignly-trained dentists to the Registers of the various States, we approach the Dental Board of every other State of this Commonwealth with the object of discussing the desirability and means of so amending the different Acts as to allow of virtually one Act governing every Dental Board in the Commonwealth."

FRANCIS M. SYME, Registrar.

THE DENTAL LESSONS OF THE SOUTH AFRICAN WAR.

The recently published "Report on the Medical Arrangements in the South African War," by Sir W. D. Wilson, K.C.M.G., late Principal Medical Officer of the South African Field Force, contains the following important recommendation, which is made by a Committee composed of Royal Army Medical Corps Officers who were actually in charge of or employed in general hospitals during the campaign:—

"That a civilian dental surgeon be appointed to every general hospital on active service. His duties should include stoppings, extractions, and mending of plates, but not to supply new sets of artificial teeth. Much of the inefficiency during the recent campaign was caused by officers and men being unable to masticate their food, owing to dental caries, thereby rendering them unfit for field service."

From the context it would appear that dentists are the only specialists whom the Committee think should be drawn from beyond the ranks of the Royal Army Medical Corps. It is their expressed opinion that it is advisable for all other specialist appointments to be held by officers of the Corps, and we are sure that the profession will agree with their tacit recognition of the fact that the scope of our work is so large as to preclude all possibility of anything more than its rudiments being acquired by Army surgeons in the course of a few weeks' study at a dental school.

The officer who was in charge of No. 2 Advanced Depot of Medical Stores, makes the following recommendations:—

"Large sets of tooth instruments for all regiments should be supplied. There was a large demand for these during the war, and sets of three and four forceps were refused by medical men doing duty at posts and with regiments."

"If dentists are employed, an assortment of drills, stopping material, mercury, and other dental requisites should be arranged for. This was done, but the articles arrived so late in the campaign that very few of them were ever used, owing to the sudden ending of the war."

The question of giving military rank to civilians whilst doing duty with the Army is thus referred to by Sir William Wilson:—

"It is a question worth consideration whether civil surgeons employed by the War Office should not be granted a temporary commission, say, on a 'reserve medical staff.' This would make their duties easier for them in many ways, and it would clear up many difficulties which were occasionally obvious during the late war, as their position would be at once defined."

The foregoing naturally applies also to dental surgeons. The status of the Army dentists engaged at present is that of "employed civilians"; this, in our opinion, is a mistake.

Speaking of the Royal Army Medical Corps (Militia and Volunteers), and the St. John's Ambulance Brigade, the Committee above-mentioned says:—

"The term of engagement for those who came out first was

far too short, as when they commenced to know their work they returned home; it should have been for twelve months or longer, as the State required."

It should not be forgotten that many of these men left their ordinary occupations to serve their country in its time of need, and might not have considered themselves justified in doing so had they been required to engage for an indefinite period. It is, however, undeniable, that the peculiarities of Army work cannot be mastered in a year, and the action of the Government in fixing twelve months as the term of engagement for the eight Army dental surgeons appointed last April, is inexplicable. To obtain the best results Service appointments should be made permanent, so that those employed could regard the certainty of a pension as compensation for the lesser immediate remuneration, as compared with private practice. A probationary period of twelve months would not be unreasonable, but the principle of year-to year appointments is unsound.—"British Dental Journal."

NOTICES.

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All contributions must be written on one side of the paper only, and must be authenticated by the writer's name and address, not necessarily for publication, but as a guarantee of good faith.

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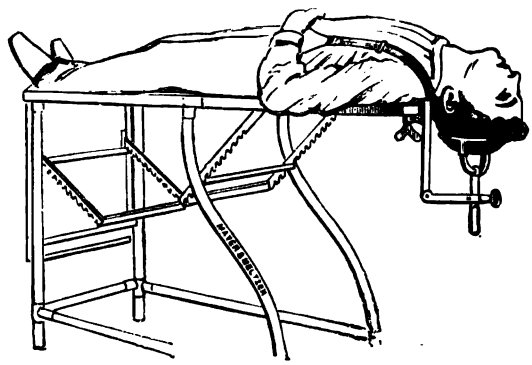

See Issue of this Journal, December 31, 1904, for article on above.

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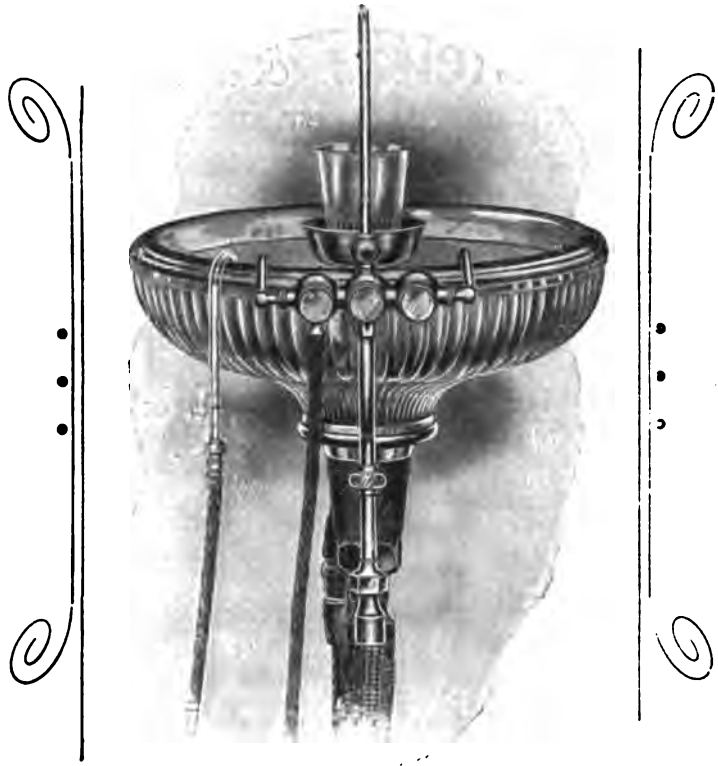

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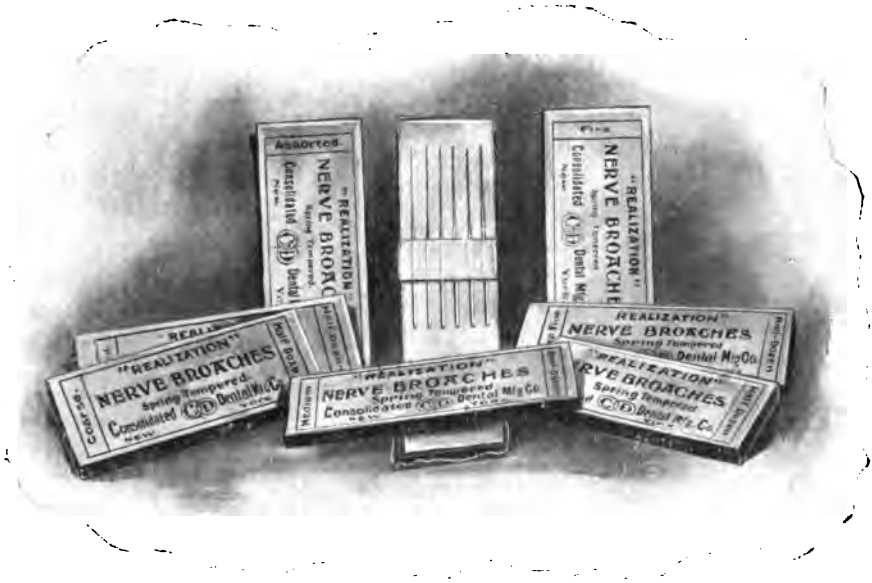

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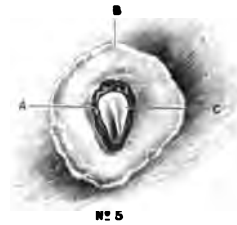

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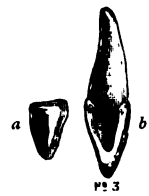

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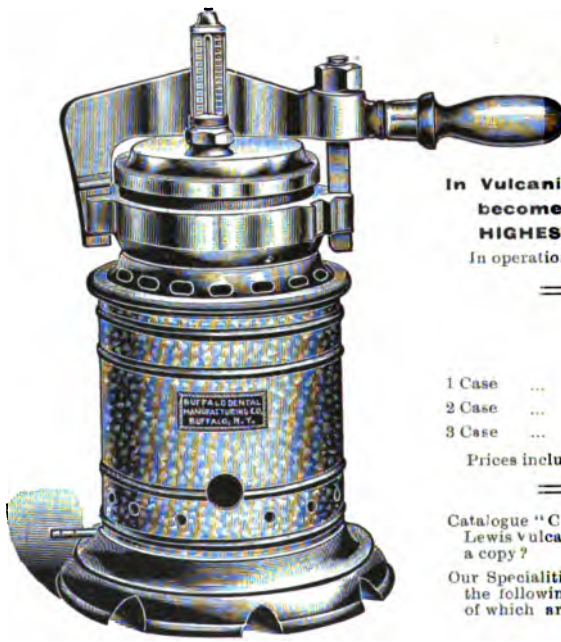

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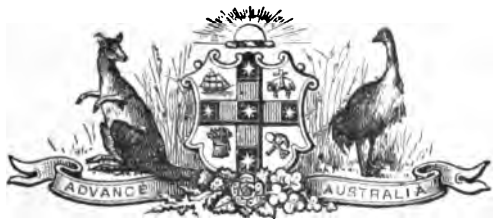

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] APRIL 29, 1905. [No. 4.

EDITORIAL.

During the earlier part of the month a very pleasant and successful gathering took place, the influence of which will be felt to have a beneficial effect among the dental profession of Victoria. The genial and spontaneous response which the committee met with in organising the affair has already been acknowledged by the honoured guest whose valuable services we so highly esteem.

While this "Journal" records the tidal wave of success, so to speak, which has attended the endeavour to attain a higher educational standard in this State, we must give space to our neighbours, and place on record similar strivings in the same direction which are being attempted in the other States of the Commonwealth and in New Zealand.

We heartily congratulate our dental friends in New Zealand on the inauguration of the Christchurch Odontological Society, under the able presidency of Mr. Thompson. Some of us know the difficulties which attend a Society where, as in New Zealand, the centres of population are so far apart. With these conditions acknowledged, we wish this, almost the youngest Dental Society, every success and prosperity.

Our congratulations are equally due to our friends in Queensland, for we learn—so far privately—that the Odontological Society of Queensland has been founded in Brisbane under the fatherly presidency of that long practised and able dentist, Mr. D. R. Eden.

In these endeavours we see that Mr. C. J. Newell in New Zealand, and Mr. C. W. Hurworth in Brisbane—both of whom are students and graduates of the Australian College of Dentistry and the Melbourne Dental Hospital—have taken a prominent part. Let us say it shows that the leaven gained in Victoria is spreading its influence.

The rules of both these Societies are based upon the rules of the British Dental Association and of the Odontological Society of Victoria. And as these rules have stood the test of time in both countries, we feel sure these newer additions to the ranks of dental societies will find them ample and efficient for their governance.

These proceedings are steps in the right direction, for it is unquestionable that by meeting together, reading and discussing "papers" on all subjects relative to the dental profession, modes of practice, &c., the individual dentist is benefited, the sharp corners are rounded off, and he is more tolerant and shows a greater respect for his professional confrere. At least this has been the experience gained in Victoria; and further, we can say that it has been repeatedly stated by many persons, who ought to know something, that from the Odontological Society of Victoria there has emanated almost all the efforts which have developed the educational results already attained.

Even as we record these signs of progress which are being manifested in this part of the Southern Hemisphere, it seems strange and almost incredible that in this scientific and advanced age members of any governing dental body should fail to perceive and appreciate the value of such subjects as Anatomy, Physiology, Pathology, Materia Medica, Therapeutics and Metallurgy in a thorough scheme of dental education, and that in consequence they should be content to let their students through the examination with such a very low pass standard as is indicated. We indulged in the hope that with the wide-spreading influence of modern ideas in dental education, the necessity of adequate knowledge in these subjects would be recognised in every dental school in the Commonwealth.

Take, for example, the experience of all the Universities, and also of the Dental Board of Victoria, the accepted standard is 50 per cent. in all subjects; and by many this standard is held to be sufficiently liberal. Some think the standard should be higher.

We have been consistent in our advocacy against the system of "cram," which by some is urged against the present system by examination. We would remind our readers that a Pass Standard is absolutely necessary if a student's knowledge of his subject is to be tested. There can be no doubt that much depends upon the individuality of character, and the calibre of the person who is appointed examiner in any subject. But withal that, as we understand the matter, an examiner in carrying out his duty has first to protect the public generally by not passing an incompetent student; he must deal fairly to the student he examines, and at the same time will do justly to the other students who are aiming at and striving for a similar goal.

There could be no advantage to a student, nor protection to the public, if only a pass standard of one quarter of the whole value of the knowledge is demanded in any subject. Such a low standard appears to us to have the tendency to make the examinations a farce, and at the same time to belittle the diploma or degree which the authorities desire shall be their sign-manual for the efficiency which invites public confidence.

PROLIFIC.—The "Indian Lancet" says that it has remained for an Italian woman to break all maternity records. She has, in the course of nineteen years of wedlock, become the mother of sixty-two children. This extraordinary statement is vouched for by many creditable witnesses who testify to its truth in a petition now before the Italian Government, asking for the woman a yearly pension of $360. Of these children fifty-nine are boys and three girls. Eleven times in succession, in nine years, the prolific female gave birth to triplets, three times four boys arrived at one birth, and once five boys and a girl. The other eleven were born singly, but very close together. The woman is a native of Nocera, a little village near Naples, and at fifty-seven is, of course, almost incapable of gaining her livelihood.—"Items of Interest."

FAILURES IN PORCELAIN FILLINGS.—The failures recorded against porcelain fillings may be summed up as follows: Displacement, breakage and loss through recurrent decay.

Displacement may be due to excessive stress brought upon the filling in mastication, to imperfect retention form of the cavity, to the use of an inferior quality of cement in setting, or to a combination of two or more of these causes mentioned.

COMPLIMENTARY DINNER TO DR. J. W. SPRINGTHORPE.

On Friday evening, April 7th, 1905, the dental profession of Victoria entertained at dinner at the Grand Hotel Dr. J. W. Springthorpe, M.A., M.D., the President of the Dental Board of Victoria, the Dean of the Faculty of Dentistry of the Melbourne University.

The dental profession was well represented, and several of the leading metropolitan medical practitioners joined in the festive gathering in compliment to their confrere.

The occasion was notable for the reciprocity of cordial feeling by members of each and both professions, and marks in the history of dentistry in this State a "red letter," which will ever be remembered by all present, and not the least by the worthy guest.

The Chairman of the evening was Mr. T. F. W. Hall, President of the Odontological Society of Victoria, and on his immediate right and left were respectively Dr. J. W. Springthorpe, guest of the evening, and Sir Samuel Gillott, Chief Secretary for Victoria, and on either side were members of the Dental Board of Victoria, of the Council and lecturing staff of the Australian College of Dentistry, of the Odontological Society of Victoria, and Drs. Fred. Bird and Stirling representing the University of Melbourne.

Toasts.

The toast first honoured was that of "The King," which was given with enthusiasm and the singing of the National Anthem.

The Chairman, Mr. T. F. W. Hall, then proposed the toast of the evening, "Our Guest, Dr. J. W. Springthorpe," and said:—Gentlemen,—With very great pleasure I rise to propose the toast that we are here to-night for the especial purpose of honouring, the President of the Dental Board, the Dean of the Dental Faculty, our guest this evening, Dr. Springthorpe (applause). Now this is to honour Dr. Springthorpe purely from the Dental profession. Dr. Springthorpe, as a public man, has rendered many services, and as one of the foremost citizens of Melbourne has many claims for recognition; but we are not here to allude to what he has done in other capacities, however distinguished, but to consider what he has done for us as a profession. It will surprise many to hear that Dr. Springthorpe has been connected with the Dental Board for seventeen years. He was

appointed to the Board by the Hon. Alfred Deakin in April, 1888, exactly seventeen years ago. He took his first seat on the Board in May, 1888, and on the resignation of Dr. Turner in March, 1897, he was unanimously elected President, a position he has held ever since, by annual election. During this time he has attended nearly every meeting of the Board, with the result that he has a masterly grip of dental affairs. The curriculum, which was framed under the provisions of the Dentists' Act of 1898, and which has been very successfully carried out by the Council of the Australian College of Dentistry, has now received the recognition and approval of the General Medical Council of Great Britain, a recognition of which Great Britain has never hitherto accorded to any other state or dependency. All members of the Dental Board should be thanked and heartily congratulated for this great achievement. Dr. Springthorpe has played a most prominent part in these recent developments. He was chairman at the recent conference, which the Dental Board called between the University of Melbourne, the Dental College and Hospital, and the members of the Board, which was instrumental in bringing about the affiliation of the College to the University. That the conflicting views between these various bodies were brought in line was due to the tact and conciliatory management of the Chairman, Dr. Springthorpe, in addition to his special knowledge of the University and of dental affairs. As far as I know, Dr. Springthorpe has never been publicly thanked for his services, and has worked all these years without fee or reward. We, the dentists of Victoria, thought it a fitting opportunity of showing our gratitude and appreciation by inviting him to dinner and asking him to accept a testimonial in the shape of an illuminated address—the time-honoured and only way, apparently, that a Briton has of showing respect and esteem for a distinguished fellow-citizen. The project was taken up eagerly, and the Secretary (Mr. E. Joske) has received many apologies from those who were willing and anxious to attend, but were prevented by reasons which, in all cases, were unavoidable. Many country dentists sent their good wishes, and many of the lady dentists wrote and hoped the dinner would be a huge success. I am sorry that they could not be present. Sir John Madden, the President of the College, is, as we all know and deplore, in indifferent health,

and in consequence could not attend. I ask you now, gentlemen, to be upstanding and drink the health of our guest, Dr. Springthorpe.

The toast so ably proposed by the Chairman was most cordially received, and clearly shewed the unanimity of feeling of all present, in that they recognised the occasion as most fitting for the recognition of the immense amount that Dr. Springthorpe had so willingly and unselfishly done for the advance of dentistry as a profession.

Dr Springthorpe, in responding, said that he felt a great compliment had been paid him by the members of the dental profession in entertaining him, and indeed felt honoured that any services that he had rendered should be so recognised. The Dental Board had begun in a small way, and in a comparatively short time had reached the much-desired haven of affiliation with the University of Melbourne, and recognition by the Imperial authorities. It had a curriculum far above that in America, and it did not medicalise the dental work, which was an advantage over the English curriculum. The American colleges had gone back to a three years' course, and that meant that no American dentist could be registered in Victoria until he had done a year's course. He thought very few would care to do that, and this meant that they had the future of dentistry of this State at their own disposal. But the Imperial recognition of their degree meant that they could practise anywhere in the British Empire, and this, too, without giving reciprocity to students not so highly trained as they were. He hoped that soon there should be a hospital and college thoroughly up to date. He indeed felt more than proud of the position which dentistry held in this State, and, speaking for himself, he had been fortunate in three things—health, opportunity, and recognition of his services. He had never had an illness in his life, save for an occasional indisposition due to a headache, sandy blight, or at most a week's attack of influenza, and had also to confess (in reply to an anxious inquiry from Mr. Kernot) that he had not even had toothache. His opportunity for helping on dentistry as a profession had to him been accepted as a pleasurable task, and now he gratefully accepted the tribute of appreciation which the dental profession made him.

Dr. Springthorpe's reply was heartily applauded, and, given in his characteristic freedom of speech, clearly indicated his keen appreciation of the manner in which the dental profession of Victoria had sought to recognise and to thank him for the invaluable services he had rendered.

Mr. Clarke, in proposing the toast of "The State Parliament," said:—Mr. Chairman and Gentlemen.—My toast is that of "His Majesty's Government in Victoria," with which we associate the name of Sir Samuel Gillott, the Hon. the Chief Secretary, who gives us the pleasure of his company this evening. It is a question as to whose position on an occasion such as this is the more unsatisfactory—that of the proposer of the toast or of the gentleman whose duty it becomes to respond to it. The one is anxious not to fail to do due honour to his theme, without seeming to insult the intelligence of his hearers by descending to fulsome flattery, while the other is compelled to listen to what he must often know is nothing more than a chain of insincere verbiage, and is probably wondering in what way his words and actions and the words and actions of those he represents may be ignorantly or intentionally misconstrued. However, Sir Samuel Gillott is a gentleman of such large experience that he has no doubt ceased to trouble about what may or may not be said at functions such as this, and no doubt he has heard the fact that "He is a jolly good fellow" declaimed—in more or less discordant tones—so frequently, that he has long ago forgotten how to blush at the thought of his own good deeds. I trust, gentlemen, that following this evening he may have cause for much blushing at the superexcellence of the good work he has done for the dental profession in Victoria. In any case, his presence with us to-night is a high compliment to our guest, Dr. Springthorpe, and I am sure we are all honoured by having with us a Minister who is of such high standing in the Government as well as being the member for our own constituency. (Applause.) There have been several Ministries in Victoria which I, for one, would have been very sorry to drink "long life and prosperity" to, and it adds very greatly to our pleasure to know that we can welcome this toast without any kind of mental reservation or regret, for I am confident that if there are any present who oppose the present Government, in personnel or policy, they stand in a very

small minority. I honestly believe that from the active and earnest—if perhaps somewhat impulsive—Premier, through the sagacious Chief Secretary, down to the least important member of the Cabinet, they are a body of men cherishing a very high ideal for the good, both social and economic, of the State whose Government has been entrusted to their care. (Applause.) Now, gentlemen, I am going to ask permission to say something about one of the several departments which work directly under the control of the Chief Secretary, and I trust Sir Samuel will not think that I am taking an unfair advantage of his position here this evening. This would be a serious offence against the laws of hospitality, but I really think that he will be pleased to hear something unofficial of the progress which has been made by one of the administrative bodies working under his ministerial auspices. Of all the boards and committees attached to the Chief Secretary's department, or any other department for that matter, I doubt if any have done more or deserved better of the community or the Government than that which is responsible for the administration of the Act controlling dental practice and education. (Applause.) Dr. Springthorpe has alluded to the growth of the nurseling "Dental Education" during the few years which have elapsed since its birth, until we have reasonable pride in the vigour which it displays, and satisfaction at the recognition which is accorded to our Victorian system. We claim, sir, that the administration of the Dental Act by the Board, splendidly assisted in the educational portions of its functions by the gentlemen composing the Council of the College of Dentistry, has wrought an immense improvement in dental knowledge and status in Victoria, to the great benefit of both the public and the profession, and that it has brought honour and credit both to the State and to the Government, in that an official recognition has been accorded to our system of education by one of the most conservative—and wisely conservative—bodies in the whole world, the General Medical Council of Great Britain. (Applause.) May I add, very diffidently, that the Dental Board has never made any application for a grant of money to the Government, or caused it any financial anxiety. (Applause.) Our College here has grown both in strength and value, and we have for it a very high ambition. We hope and believe that with careful and politic management it will become

the teaching centre for our profession, for at any rate the Southern States of Australia, as well as for Tasmania and New Zealand, and our graduates have already high recognition in most, if not in all, of the States. But, Sir, although much has been done, very much still remains, and we find that many evils have crept in, more especially in regard to dental practice in Victoria, which the Board finds it impossible to prevent without greater power than it already possesses. We therefore are going to ask the Government and Parliament to show that we possess their confidence, as we believe we have deserved it, and during the next session of Parliament to pass an Act giving the Board greater powers of control and direction. Granted this, we will be able to still improve both dental knowledge and dental status, to the greater honour and advantage of the State and of the common weal. (Applause.) Gentlemen, I will ask you to drink, with the satisfaction I know you feel, "Long life and additional prosperity to the present Government of Victoria," and to couple with the toast the name of Sir Samuel Gillott, the Hon. the Chief Secretary.

SIR SAMUEL GILLOTT, in responding to the toast, said that he had for some time noted the advance which dentistry as a profession was making, and to him it was indeed pleasing, since the elevation of that profession meant a safeguard to the general public against the indiscriminate use of little knowledge, and to their benefit the scientific treatment which a thorough dental education demanded. With regard to the amendment of the Dental Act, to which the proposer of the toast had referred, he, as soon as the Dental Board had given him the necessary data for the Amending Bill, would bring the matter before the Cabinet, and see if he could introduce it during the next session of Parliament. (Applause.)

The CHAIRMAN then called upon Mr. Iliffe to propose the toast of the University of Melbourne.

MR. ILIFFE, on rising, said:—Mr. Chairman and Gentlemen.—The toast which I have the honour and pleasure to propose is the important one of the University of Melbourne. I am much afraid, however, I shall not be able to do full justice to so learned a body. Before proceeding further, I would like this gathering to express with me our great sympathy with the Chancellor, His Excellency, Sir John Madden, in his indisposition, which precludes his attendance here to-night, and at the same time to express our

hope that he will speedily recover his wonted health. And that our genial Honorary Secretary forward this sentiment by letter. If we compare—and I suppose, Mr. Chairman, comparisons may be allowed—I say, if we compare the University of Melbourne with those ancient seats of learning in the old Motherland which have shed such a lustre on the literature and thought of the English nation for so many centuries, I venture to say we can congratulate, not only the University of Melbourne, but the whole community upon the great strides the University has made towards a higher culture since its inception in 1853. Nowadays the condition of things is different; but I fancy that, if it were possible for the spirits of Sir Redmond Barry and his worthy colleagues to clothe themselves in mortal flesh once more, and revisit the scenes of their former labours, their hearts would be gladdened and satisfied that the superstructure which has been raised by equally painstaking men, has been raised to such noble proportions upon their well and truly laid foundations. What the University wants is a larger endowment fund. In this, I do not lose sight of the generous promise of the present Premier of the State to increase the Government's share of the annual endowment. Thanks to the liberality of the graduates and to the more than equal liberality of the public, the University finances have been lifted out of that "slough of despond" in which they have been submerged during the past few years. So that now the authorities, each in their several spheres, can pursue the even tenor of their way without the "carking care" of financial worry. It seems to me, Mr. Chairman, our congratulations are called forth from the fact that affiliation with the University of the Australian College of Dentistry and the Melbourne Dental Hospital, with the authority and help of the Dental Board, has been so amicably accomplished. No friction marred the negotiations. The Faculty of Dentistry has been inaugurated, and each interest has been equally recognised. This, I think, is a fitting crown to the work of the Dental Board. Now, gentlemen, please join me in wishing prosperity and progress to the highest institution of learning in the State of Victoria—the University of Melbourne, more especially the Medical and Dental School.

Dr. Fred. Bird, on rising to respond, said:—Mr. Chairman, Sir Samuel, Mr. Iliffe and Gentlemen.—In the regrettable absence of

the Chancellor, Sir John Madden, I have the distinguished honour of returning thanks for the University. The recent developments in dental education have been watched with much interest and solicitude by the University. At the age of fifty, when most people's senses begin to fray a little at the edges, it is very grateful to our kindly mother to feel that she is being gifted with a new faculty. It is an excellent endowment for her, and this enlargement of her utility is an excellent thing also for the dental profession, defining and crystallising as it does their status in the larger profession of medicines, and it is most certainly a most excellent thing for the oncoming dental students that they should have available an education conducted under the ægis of the University. For our master—the Public—these changes cannot but be for good. It is fitting and fortunate that the first Dean of the new faculty should be our guest to-night, and from a long experience of him and his great capabilities, I can confidently assure you that the honour and interests of your profession are in the safest hands. I thank you very cordially, Mr. Iliffe and gentlemen, for the way in which the toast of the University has been honoured.

Mr. L. Price, in proposing the toast of "The Dental Board," said:—Mr. Chairman and Gentlemen.—It gives me the greatest pleasure to be able to address you this evening, and to offer a toast to the Dental Board of Victoria, the leaders of which are gathered with us this evening. You fellow-dentists are well aware of the good work that has been done by our Dental Board to such an extent that the membership has always been regarded as the blue ribbon of the profession, the seats of which have always been keenly contested. With a definite plan of work, with determination in the cause, and guided by such veterans as Dr. Springthorpe, Mr. Iliffe, Mr. McGregor, Mr. Clark, and Mr. Joske—men who have done yeoman service to carry out the aims and objects as laid down by them—surely it must be the greatest satisfaction to the Dental Board, in seeing the success already maintained, considering the strong prejudice that was against them. This Board has worked with heart and hand, and their efforts have borne fruit to such an extent that, notwithstanding the decided opposition, they maintained their point, and to-day the diploma L.D.S., as conferred by them, is recognised by the General Medical Council of Great Britain. This is the first instance, I believe, that a

diploma has been recognised outside Great Britain, including the British dominions. You members have elevated the dental profession in Victoria to the high standard which it now holds, Words cannot adequately express our sincerest thanks, and our greatest appreciation of your services, so unselfishly given. Gentlemen, I ask you to rise and drink with me to the Dental Board of Victoria.

MR. MCGREGOR, in reply, said:—Mr. Chairman, Sir Samuel Gillott, and Gentlemen.—On behalf of the Dental Board allow me to tender you my most sincere thanks for the kind manner in which you have treated them. I can assure you the Board spend a great deal of time over the business that comes before them, and do it with a good spirit, and, to speak for myself, will continue to do so. Gentlemen, deeds are better than words, and I can assure you that the Board will do their utmost to get those amendments to the Act through Parliament, and I hope we will be able to stop the unregistered men who are now over-running the country, to the detriment of our students and registered dentists.

The CHAIRMAN next called upon Mr. Iliffe, the oldest practising dentist amongst us, and one who had justly gained the respect of all, to present the following address to our very worthy guest:—

MR. ILIFFE said, on presenting the address:—DR. SPRINGTHORPE,—It is with great cordiality that I fulfil the very pleasing duty which has been entrusted to me this evening. I have the honour, on behalf of the members of the dental profession of Victoria, and in their name, to present you with this address. I have had the honourable and pleasant association with you for fifteen years in the work of the Dental Board. Personally I know your work, but words of mine lack sufficient eloquence to testify on the dentists' behalf the worth and value of your services to the cause of dental education in Victoria. However, the address will speak for itself. I will simply add that I believe it expresses the sentiment and good-will towards yourself of every member of the dental profession of Victoria.

PRESENTED TO

JOHN WILLIAM SPRINGTHORPE, M.A., M.D., M.R.C.P. LOND., J.P.

President of the Dental Board of Victoria,

Dean of the Faculty of Dentistry, University of Melbourne,

at a dinner given in his honour by the Dental Profession of Victoria at the Grand Hotel, Melbourne, on Friday evening, April 7th, 1905.

Dear Sir,—

We, the undersigned, members of the *Dental Board of Victoria, the Council of the Australian College of Dentistry and the Melbourne Dental Hospital, the Odontological Society of Victoria,* and of *the Dental Profession of Victoria,* in the Commonwealth of Australia, desire to convey to you our hearty recognition of the very valuable services you have given both as a member and as President of the Dental Board in the development of dental education, and in the establishment of the profession of dentistry on a higher ethical standard in this State.

Ever since you were requested by the Chief Secretary of Victoria to accept a seat on the Dental Board—now seventeen years ago—your work has been conspicuous for its consistent and strenuous endeavour to place dental education on a safe and true basis. Beginning with the sure foundation of a thorough preliminary educational standard, the building-up of the curriculum has proceeded on practical and right lines. The progress made and the standard raised is such as not only to satisfy the University of Melbourne—with which learned body affiliation has happily been accomplished—but it is also to be recorded that the standard authorised in Victoria has received the full recognition of the General Medical Council of the United Kingdom. A position so far unique, as it is the first recognition made by that august and conservative body of Medical Registration to any dependency of the British Empire.

We, dear sir, feel most deeply that such a consummation of affairs is due in no small degree to the untiring energy and devotion, discriminating tact and admirable management you have at all times displayed, and therefore we desire that you will kindly accept this address as a token of our sincere esteem and regard, and as a

The Address was beautifully illuminated, engrossed and framed by Chas. Troedel & Co., of Bank Place, Collins Street.

small recognition of your very valuable services to the dental profession and in the cause of dental education.

T. F. W. Hall,
CHAIRMAN OF COMMITTEE.

John Iliffe.	*Arthur R. Clarke.*	*Donald McGregor.*
Geo. Lugg.	*R. A. Cooper,*	*Fredk. A. Kernot.*
F. M. Ludbrook.	*Alec. L. Elvins.*	*Fred. A. Down.*
L. Price.	*Wm. E. Davis.*	*Jas A. Bruce.*
Percy J. Wilkinson.	*Wm. L. Aitken.*	*Wm. A. E. Graham.*

Ernest Joske,
HON. SECRETARY.

DR. SPRINGTHORPE, in reply, said that the occasion was one that could not soon be forgotten by him. The ship of Dental education had, after a memorable voyage, reached its haven. He had simply been its captain. The successful termination had been attained because the ship had been well found, and well manned, and well charted. Any services that he had been able to render had been more than repaid by the appreciation thus shown. He again thanked them most sincerely.

MR. PERCY WILKINSON, in proposing the toast of "The Australian College of Dentistry and the Melbourne Dental Hospital, said: —Mr. Chairman, Sir Samuel, and Gentlemen,—I have much pleasure in proposing the toast of the College and the Dental Hospital. The Melbourne Dental Hospital was founded in 1890 by a few of the leading dentists of Victoria, and upon their shoulders fell the task of pioneering that institution through many a stormy trial. The outcome of the grand work they did in those early days of dental education was the formation of the Australian College of Dentistry, an institution which, when one comes to consider that it is only in its eighth year, has done wonderfully good and efficient work. One often hears the remark, "What great strides dentistry has made during the last few years," and one of the principal reasons for that remark is because the average individual is being educated to the importance of the care of the oral cavity, and it is due to the Australian College of Dentistry and Melbourne Dental Hospital, in a large measure, that that enlightenment has been brought about. The most interesting of human studies is the knowledge of oneself. And whilst we have institutions each

endeavouring, in its own special branch, to impart knowledge and instruction as the very able and efficient staff of lecturers and demonstrators of the College and Hospital are doing, we can rest satisfied that the welfare of dental education in this State is on a very satisfactory basis. For they are not only engaged in the alleviation of the troubles of the suffering poor, they are not only engaged in the instruction of the dental student, but they are doing a grand work in the education of the general public to the very important part played by the teeth in the maintenance of the general health. And now that the curriculum of the College has been brought to such a standard as to carry the recognition of the "General Medical Council of the United Kingdom," you will all agree with me that the Australian College of Dentistry and Melbourne Dental Hospital deserve the highest appreciation of the dentists, not only of Victoria, but of the whole Commonwealth, as they are the pioneers of dental education throughout the States. Gentlemen, I will ask you to drink to the continued good work and success of the Melbourne Dental Hospital and Australian College of Dentistry.

Mr. F. A. Kernot, in replying to Mr. Wilkinson's toast of the College and Hospital, thanked Mr. Wilkinson and all present for the enthusiastic way they had responded to the toast of the College and Hospital. He had listened with pleasure to Dr. Springthorpe, who had likened the College to a ship that had passed through troublous times, but had now—thanks to the efforts of those concerned—been brought safely to port and moored in placid waters. He would like to carry the illustration a little further, and suggest that the ship should not be allowed to rot at her moorings, but should be used as a training ship, where the dental student of the future could obtain the necessary instruction which was of such vital importance if he was to be the success that the College Council desire him to be. There was one person, though not present, should be mentioned on this occasion, a man who had devoted much time and energy in the part to promote dental education, and for several years filled the position of President of the Dental Board. He referred to Dr. Duncan Turner. (Cheers.) Dr. Turner had conducted the business of the Dental Board in a most thorough manner. As Chairman, he was always ready to hear anyone; but was immediately down on any offender who dared

to take advantage of any concessions granted to him. The time, gentlemen, moves apace; there are others to be honoured this evening. I thank you again on behalf of the Council, College, and Hospital, for the kind way in which you have supported the Council in the difficult task that they have undertaken, and, I think, successfully accomplished, in bringing the ship to a calm haven, and, I hope, a secure anchorage,

MR. ALEC ELVINS in proposing the toast of the Medical Profession, said:—Mr. Chairman, Dr. Springthorpe, Sir Samuel, and Gentlemen,—In proposing the toast of the Medical Profession, I feel that I am entrusted with the second toast of the evening, since I regard it as the first corollary of the main proposition. The members of the dental profession of Victoria have drunk to the health of our worthy guest with all the enthusiasm which might be expected from those members who fully recognise the happy results consequent to the indefatigable efforts of our friend and leader, in so advancing dentistry as to place the professions of medicine and dentistry on similar grounds. And Dr. Springthorpe is one of the medical profession; and in his endeavours has been ably and nobly supported by many of his medical confreres. To speak of them individually would demand of me a series of panygerics which, though well deserved, would perchance be ill-advised on an occasion such as this, when Comus is so alluring, and our fair Sabrianas is so anxiously waiting to dispel his charms. Impelled by sincere and altruistic feelings, many of the members of the medical profession deviated from their beaten and established way, in reply to the cries of their dental friends, and finding them struggling through the morass of unprofessionalism, have led them to the path which makes for the higher accomplishment of an ethical and scientific practice of dentistry. And now the medical and dental students are fostered by the one and same Alma Mater, and may I express the hope that these students, who are (coincidently with our gathering together to-night) mutually making merry in the joyous aberrations of youth, may so work in concord that their association now may prove to be the main factor for the ultimate cementing of two professions, which will mean social and professional harmony to the national benefit of our race. To the medical profession we owe our sincere and hearty thanks, and as symbolical of tendering such, I ask my fellow dentists to be upstanding, and drink to the health of the Medical Profession.

DR. STIRLING, in reply to the toast of the Medical Profession, thanked Mr. Elvins for the kindly manner in which the toast had been proposed, and the members of the dental profession for the hearty manner in which it had been received. He was continually reminded of the enthusiasm which dentists had in their work, and such was not the less apparent among those dental students whom he had under his care. That very evening he had lectured to them, and, prior to commencing his lecture, he was informed that brevity would be acceptable, since there was to be some fun on at the Chute. Brevity was therefore agreed upon, but ere the few interesting details of the lecture were expressed, the telephone announced that Dr. Stirling was wanted at the Hospital, to operate immediately. His surprise might be imagined when, instead of finding a general exodus to the Chute, "to a man" those blessed students followed him over to the hospital! Dentistry was becoming so fascinating a profession, that soon he expected a dearth of M.B.'s and M.D.'s practising medicine, for all these men would be practising dentistry. He again, on behalf of the Medical Profession, tendered their hearty thanks.

DR. J. E. NIHILL, in proposing the toast of the Odontological Society, said:—Mr. Chairman, Sir Samuel Gillott, and Gentlemen, —This is not the first time I have had the honour of proposing the toast of the Odontological Society of Victoria, but on no previous occasion have I been more proud and pleased to carry out that duty than to-night. I have attended many dinners given as compliments to different professional men, but no one has deserved some appreciation of his services to the dental profession more than Dr. Springthorpe. This function has been carried out with such enthusiasm, and marking as it does such an important epoch in dental education, that in the future we will look back upon this as quite a historical evening. This evening will tend to keep up the reputation which not only your Society, but also the more juvenile one—the Dental Students' Society—has earned for making their social evenings a success. I sincerely hope that one of the results of this re-union will be to add recruits to your Society, and will conclude by asking you to drink long life and prosperity to the Odontological Society of Victoria.

MR. T. F. W. HALL, President of the Odontological Society, and MR. R. A. COOPER, replied to the toast so ably proposed by

Dr. Nihill, and cordially thanked him and all who had so kindly received the toast, for his and their wellwishes to the Society.

Dr. Springthorpe, in a few well-chosen remarks, proposed the health of the Chairman, who had so ably carried out his duties that evening,

Mr. Hall, in reply, thanked Dr. Springthorpe and all present for the kind manner in which the toast had been proposed and received. He, however, disclaimed any of the success of the evening, since the work had nearly all been done by the energetic Secretary, Mr. Joske. He called on Mr. Joske to speak.

Mr. Joske, in responding, said he thanked Mr. Hall most sincerely for the cordial manner in which he had mentioned his name, and he also thanked the assembled company for the generous manner in which they had received the toast, and drunk his health. The duties which he had to perform in connection with the profession of dentistry were to him a veritable labour of love, and nothing was more gratifying to him than the progress of dentistry in Victoria. He had been specially pleased to have acted as Hon. Secretary of the Committee which had arranged the present function, but the Committee itself deserved the lion's share of the praise for carrying it to a successful issue. He had not expected to be called upon to speak, but he was glad he had been, so that he might contribute his quota of testimony to the value of the work Dr. Springthorpe had done, as President of the Board. Dr. Springthorpe had devoted himself with untiring energy and enthusiasm to his duties, and he had been the beau ideal of a President. He trusted Dr. Springthorpe would be long spared to continue his work as President, and to adorn the position he filled in the medical world, and as a private citizen (Cheers.)

Mr. Horace Stevens and Mr. L. Price added much to the enjoyment of the evening, by vocal numbers, and Professor Ireland made a very efficient pianist.

The singing of "God Save the King" brought a memorable evening to a close.

COLLEGE NOTES.

DENTAL STUDENTS' SOCIETY.

The annual meeting of the Dental Students' Society was held at the Australian College of Dentistry on Friday, March 31st. The attendance, though good, did not come up to expectations, and it is to be hoped that members during this year will keep the dates of meetings in view, and attend regularly.

In the absence of the President, Dr. W. Orr Gray, Mr. Herbert Bennett was voted to the chair.

The Chairman, after opening the meeting, said that the first business was the election of officers, and he announced that the following office-bearers had been elected unopposed:—President, Dr. W. Orr Gray; Vice-Presidents, Messrs. D. McL. Austin and J. McDonough; Hon. Treasurer, Mr. B. J. Thompson; Hon. Secretary, Mr. W. R. Lyon. For the Commitee a ballot was taken, which resulted in the following gentlemen being elected:—Messrs. R. G. Braham, R. S. Grant, S. F. C. Bindley, V. C. Jennens, and A. E. Frost; Sports Committee: Messrs. V. C. Jennens, J. McDonough and R. A. Wright; Hon. Curator of Museum: Mr. A. Lambert.

The next meeting of the Society is to be held on the evening of Thursday, May 4th. As this is a matter which largely concerns all students at the Australian College of Dentistry, as well as past students who have obtained the L.D.S. degree, we hope to have a full attendance on that occasion.

A large amount of general business was dealt with, and the meeting closed.

The following prizes have been promised for competition during the incoming year:—For General Operative Surgery: Messrs. Felton, Grimwade & Co., £5/5/-; Messrs. Bosch, Barthel & Co., £2/2/-; Messrs. H. C. Ford & Co., £2/2/-; Messrs. M. S. Sowerby & Co., £2/2/-. For Operative Technique: Dr. W. L. Aitken, £2/2/-. Messrs. Bosch, Barthel & Co., Ford & Co., Sowerby & Co., subject to the vote of the Students' Society themselves.

Papers have been promised by the following gentlemen:—Dr. Gray, paper on Somnoform; Mr. S. F. C. Bindley, paper on Metal Splints; and Mr. Percy Clark.

The Committee of the Society have decided to hold a Cinderella dance on Saturday, June 17th.

At the University commencement, held on Saturday, April 8th, the Dental students were well represented, and raised their voices in song. The dental verse in the University Anthem, composed by Mr. O. S. Stevens, was as follows:—

"The Dental students now,
Have joined the good old shop, sir;
And if you please, to pay their fees,
Their boots they'll have to pop, sir."

The Dentals assisted largely in the two processions to Princes' Court. The University Sports' Union are holding a sports meeting on May 13th and May 17th, and it is to be hoped that those Dental students who by matriculation are eligible to compete will not fail to enter for the various events, Entries close with the Secretary of the Dental Students' Society on Friday, May 5th.

SOMNOFORM v. NITROUS OXIDE.

BY W. ORR GRAY, L.D.S. ED., D.D.S., UNIV. PA.

The discovery of nitrous oxide as a general anæsthetic specially adapted to operations occupying a short period of time, was greeted by dentists with more or less suspicion at first, in many cases amounting to absolute antagonism.

However, as the daring pioneers carried out their experiments with the utmost carefulness and perseverance, success crowned their efforts. Incredibility on the part of the dental profession gradually gave way to wonderment, and that in turn to a desire on the part of each member of the profession to try the new anæsthetic for himself—till at the present day, from the humblest to the most ambitious dental practitioner, nitrous oxide is looked upon as the safest and best general anæsthetic to be given for all operations of short duration.

Fatalities have marked the course of nitrous oxide, but to a very much less degree than in the administration of chloroform or ether, and, in the hands of capable experienced dentists, it rightly deserves its name as the safest general anæsthetic known, that is, up to the last year or two.

The chief advantages claimed for nitrous oxide are the safety of its administration and its freedom from unpleasant after-effects; but its great disadvantages are the cumbersome and expensive apparatus necessary for its administration, the short period of anæsthesia produced, the total absence of analgesia when anæsthesia is passing off, occurrence of jactitations rendering it almost impossible in many cases to accurately place an instrument on a tooth, and last, but not least, the unpleasant appearance of the patient's features to onlookers and the irregular nature of the respirations. Within the last year or two somnoform has been advocated as a general anæsthetic to be used in preference to nitrous oxide.

For its history and method of use full instructions accompany each box of the anæsthetic, these being all that are necessary to the most inexperienced. Somnoform is now passing through a period of doubt, suspicion and expectancy, not unlike that of nitrous oxide when first used in dentistry.

There are many amongst us who condemn the use of somnoform at once, never having used it themselves or even seen it used, whilst there are others who are so conservative that, once having used nitrous oxide, they cannot discard it, even though they believe somnoform to be better adapted to dental operations requiring an anæsthetic. A few of the more ambitious dentists began to give somnoform instead of nitrous oxide, but, hearing of a fatality with chloride of ethyl or with narcotile or with kelene, they at once sheered off again, and condemned somnoform as being too dangerous to use.

If fatalities under general anæsthetics were to prohibit their further use, what anæsthetic have we that could be used as such? Not one. Somnoform has been used exclusively in over one hundred and fifty cases at the Melbourne Dental Hospital within the last few weeks, and has given the greatest satisfaction to all concerned, fulfilling all that its most ardent supporters claim for it.

The patients have been taken at random, that is to say, no special precautions have been taken other than those taken for the administration of nitrous oxide, and in only two cases has vomiting occurred as an after-effect, and I am positively certain the vomiting was due solely to swallowing of blood in both cases, and not to the action of

the anæsthetic itself. Some patients complain of "feeling funny," and a few experience a sensation of nausea lasting only a minute or two, but the majority leave for their homes within a few minutes after the operation, and not one has ever complained of any further ill effect.

After careful study of other apparatus, I use preferably the "Perfect" mask and inhaler, designed by Field Robinson, D.D.S. Univ. Pa., as, for simplicity and utility and ease of sterilisation, in my opinion it is superior to any I have yet seen. With this inhaler I found that, owing to the nature of somnoform, a great percentage of the agent was lost by volatilisation whilst anæsthetising the patients; however, by placing a piece of lint in the cylinder of the inhaler between the linen diaphragm and the bag, I found no appreciable amount of somnoform was wasted.

After careful study, as well as the close questioning of patients, I find that the best method of administering somnoform is to break a tube into the inhaler and close the valve at once. Apply the face-piece immediately, but not perfectly close on the face for the first four or five seconds, so as to allow the patient's senses to become gradually dimmed, and so prevent any feeling of suffocation —a sensation always experienced by patients when, prior to nitrous oxide or other anæsthesia, a face-piece is applied tightly to the face, the mouth and nostrils becoming filled with the vapour of the anæsthetic whilst the patient is perfectly conscious.

After four or five inhalations I press the face-piece close to the face, and exclude all air, the exclusion of air from this stage until the anæsthesia is complete being absolutely essential or after-sickness is prone to occur.

By following this procedure it will be found it takes from twenty to fifty seconds to produce anæsthesia, and the period of anæsthesia I have found will last from one to five minutes.

Following the period of anæsthesia is a distinct period of analgesia, lasting from one to five minutes, during which period, if desired, the operation can be continued without the least pain and danger of shock to the patient. A factor unknown in nitrous oxide anæsthesia. The average number of teeth extracted in each case at the Melbourne Dental Hospital has been five or six, and in many cases ten or twelve, and in some twenty or more. The

anæsthetic has been re-applied twice or three times as required, as the anæsthesia was passing off. Personally I have never yet required to keep a patient under the influence of somnoform longer than five minutes, but cases are recorded where the anæsthesia has been prolonged for over twenty minutes, with no unpleasant symptoms and after-effects. The average quantity of somnoform used has been one tube of 3 c.c., but tubes of 5 c.c. can be obtained, or a second tube of 3 c.c. used if desired. The most reliable sign of anæsthesia is relaxation of the muscles, gauged by me preferably by those of the arms, but the loss of the conjunctival reflex, though not reliable in every case, is fairly constant, and as such is an adjunct. There is no loss of natural colour, but, if anything, a slight flushing of the face, and no struggling except in cases of alcoholics or inveterate tobacco smokers. The respiration remains beautifully regular throughout, and the pulse is strong and regular, but slightly faster than normal.

No patient has expressed a distaste to taking somnoform a second time when necessary for successive operations, and one of our own students, who previously had nitrous oxide administered for tooth extraction one day, and somnoform on two successive days, much preferred the somnoform, and so, needless to say, did the operator, as the teeth were extremely difficult of extraction.

After the most careful and critical use of somnoform, my personal opinion is that it has come to stay, and is far superior to nitrous oxide for many reasons.

It is easily handled and as easily administered; has no ulterior effect on the heart or on the respiration; the period of induction is short, and the ensuing period of anæsthesia materially lengthened; there is total absence of any unpleasant symptoms to worry the anæsthetist or onlooker; the apparatus is not in the least cumbersome and its cost is fairly reasonable.

I have no hesitation in saying that I would never now administer nitrous oxide myself in preference to somnoform in private practice, as I firmly believe we take more risk with the former and do less justice to our patients.

All anæsthetics incur some risk in administration, but in my opinion somnoform less so than any, and as such is worthy of consideration by every dentist, and should ensure a fair trial at least.

Splendid articles on the subject of somnoform appear in the December and February numbers of the "Dental Cosmos," and in the October number of the "Journal of the British Dental Association," and for special information as to the action of somnoform on the vascular and nervous systems, I would refer all interested in the subject to those journals.

The following are the particulars re five cases:—

First Case.—Young woman of about 25—Naturally hysterical. No preparation made in the way of loosening any portion of the clothing. Pulse was felt once or twice. The inhaler was not pushed close to the face until after three or four inhalations. A tube of 3 centimetres was used. Time from first inhalation to anæsthesia, 50 sec.; time spent in operating, extracting three teeth, 35 secs.; whole time until recovering consciousness, 1 min. 55 secs. A capital analgesic period. This patient felt very funny, she said; rested for some time. Hysteria.

Second Case.—Young woman about 18—plump and of good colour; sat down as she was, no preparation as above. Breathing for several seconds very sluggish. Time, inceptive stage to anæsthesia, 1 min. 13sec.; total time until recovering consciousness, 2 min. 20 secs. Three teeth extracted in this instance. Recovery very rapid. In six minutes patient walked away, apparently none the worse for the administration.

Third case.—Patient (male), 42—Anæmic and alcoholic, and told us he was not allowed chloroform, as he had a bad heart. Somnoform given, 5 c.c.; induction period, 60 secs.: recovery took 4 minutes. Anæsthesia excellent, lasting fully 1 min. 30 sec. Eleven teeth extracted. Patient struggled violently. Left the hospital in five minutes from the time he was completely conscious and had no further ill-effect.

Fourth Case.—Patient (male), 35—Alcoholic. Somnoform given, 5 c.c. Patient took it well, and anæsthesia was produced in 40 secs., and lasted 1 min. and 3 secs. Patient had five teeth extracted, and then began to shout and struggle so violently that he was with difficulty held down for five minutes, when he regained his senses, and had no further ill-effect. No pain was felt, and patient had no knowledge of struggling.

Fifth Case.—Female, 20—No history of heart disease or other organic trouble. Patient took somnoform splendidly. Induction period was 50 secs.; anæsthesia, 2 min. 30 secs., during which time twenty back teeth were extracted, the upper and lower incisors and canines only being left. Patient recovered splendidly; no complaint of any nausea or other after-effect, and left the hospital as soon as the bleeding permitted.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

The ordinary monthly meeting of the Board was held on Monday evening, April 3rd, at the Board Room, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson) took the chair at 8 o'clock, there being also present Dr. Palmer, Dr. Peach, Mr. Stinson, Mr. C. Hall, Mr. C. C Marshall, Mr. G. Norton Russell.

The minutes of previous meeting were read and confirmed.

The bank pass book was examined and found correct and accounts were passed for payment.

The following applications for registration were received and dealt with:—Mr. C. T. Burkitt, Dubbo; Mr. C. H. Wall, Darlinghurst Road, City; Mr. Cyril Cooper, King Street, City; Mr. F. P. Kirkpatrick, Douglas Street, Petersham; Mr. F. C. Williams, Adelong; Miss. L. L. Amesbury, Glen Innes; Mrs. Gertrude Trudgeon, Bundaberg; Mr. J. O'Dea, Hobart, Tasmania.

An alteration was made in Register of Sydney A. Sands, by addition of D.D.S., University of Pennsylvania, 1904, State Board Certificate of Pennsylvania, 1904.

The following were, after due examination, registered:—Messrs. C. T. Burkitt, C. H. Wall, Cyril Cooper, F. C. Kirkpatrick, F. C. Williams.

The following were postponed for further information:—Miss L. L. R. Amesbury, Mrs. G. Trudgeon.

The motion standing in the name of Mr. C. Hall, viz: "That an additional fee of two and a half guineas be granted to the Examiners in view of the difficulty attending the first examination"—was seconded by Mr. Marshall, discussed, and voting being equal, was on casting vote of chairman carried.

The motion standing in the name of Mr. Marshall, viz.—"That section No. 34, second and third clauses, be rescinded, and the following substituted and gazetted: 'The license to practise of a legally qualified Dental Board, or other body approved by this Board, whose

certificate is granted after not less than four years' study of dentistry, and satisfactory examination in the following subjects, viz.—Anatomy, physiology, Materia Medica, histology, bacteriology, pathology, therapeutics, chemistry and metallurgy, operative dentistry, prosthetic dentistry, hygiene, orthodontia and chemistry (inorganic).' This to affect curriculum commencing after June 30th next ''—was seconded by Dr. Palmer, discussed and lost by four to two, Mr. Stinson, Mr. Hall and Dr. Peach speaking against the motion, the mover—Dr. Palmer—and Mr. Hodgson speaking for.

The date of Post Mortem examination for those students who failed to pass the recent Board examination was fixed for June 21st next.

The certificates of examination were ordered to be issued to those successful students who have applied for same.

Correspondence was read, and business arising therefrom was dealt with.

The next monthly meeting of the Board will be held on May 1st.

The meeting then closed.

HORACE TAYLOR, Registrar.

A MODIFICATION OF THE OPEN-FACE CROWN.

Read by Mr. J. Houghton Bradley, L.D.S., University of Sydney, before the Odontological Society of New South Wales, 20th March, 1905.

While not an advocate of the extensive use of the open-face crown, I consider that there are cases where its application is indicated. Where a sound inferior cuspid or incisor or a superior cuspid is to be used as an abutment, it always seems to be to my understanding a grievous sacrifice to cut off the crown and adjust a Richmond crown. The stability of the latter attachment in the case of the inferior teeth is perhaps also endangered by the weakening of a small root in the preparation for the reception of the post. Of the other forms of attachment the all-gold crown is excluded in the cases indicated for æsthetic reasons, while the other forms have each some objection—either extensive sacrifice of the tooth substance or doubtful permanency.

The open-face crown is, in my limited experience, the cause of a large proportion of failures in bridge work, mainly owing to its

application in cases which are totally unsuitable, either because of the conformation or the position of the tooth; or, shall I whisper it, careless preparation of the abutment or the crown.

Let us divide the failures into two sections—(1) Those which are avoidable, namely:—

(a) Faulty preparation of the abutment;

(b) Want of fit owing to this and other causes;

(c) Using it in cases where it is impossible to get the two abutments parallel;

(d) Loosening after adjustment. The crown being driven towards the cervix by force of mastication, owing to inaccuracy of fit and neglect to cover the incisal end of the tooth.

(2) Those which are due to inherent weaknesses of the crown as usually constructed:—

(a) Washing out of the cement under the narrow labio-gingival band.

(b) Difficulty, which almost amounts to impossibility, of being sure that there is cement under every part of this section of the crown;

(c) Stretching of the crown at this point in the inevitable fitting and removal of the bridge when in course of construction;

(d) Recession of the gum at this point, owing to the presence of a band which must necessarily be of considerable thickness in order that it may resist the strain of fitting. Subsequent washing out of the cement owing to the foregoing.

The object of the modification I am about to describe is to avoid these latter weaknesses. It may, perhaps, prove a failure. I should like, later on, to hear the opinion of some of our senior members as to its practical utility. Briefly, my method is as follows:—

Prepare tooth in the usual way. Construct crown and reinforce strongly, taking care to prevent any solder flowing over the narrow labio-gingival portion. Complete the bridge, place in position, and, with a sharp instrument, mark on the tooth the position and contour of the upper border of the narrow band. Carry this mark

for a slight distance up each side of the open face (a) Fig. 1. Now

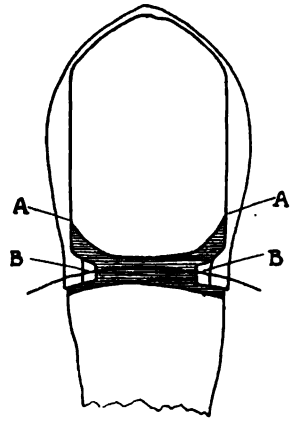
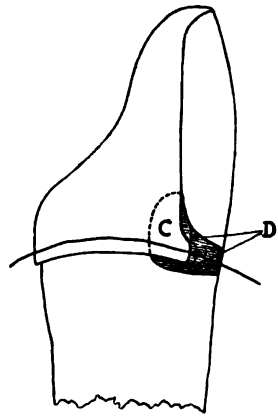


FIG. I.

remove the bridge, and, with inverted cone burs, prepare a cavity in the tooth about the same width as the narrow band, using the mark as a guide. Extend laterally, as indicated (c) Fig. 2, and carry under cervical margin. Let the cavity be sufficiently deep to allow of the insertion of a gold filling subsequently. Each lateral wing, and the centre of the cavity, to be of independent retentive shape. Place the bridge in position and make sure that the cavity is the proper shape. Remove the bridge and adjust the rubber band to each abutment. Fill with gold each lateral wing of the cavity to slightly forward of the sides of the open face (d) Fig. 2. Polish down the gold fillings with discs. Place bridge



in position again and mark the segment of the band which is to be removed—sufficient band to be cut out to allow the severed ends, when burnished in, to almost rest on the base of the cavity. Now reduce in width and thickness these tags (b) Fig. 1 to facilitate burnishing in. See that they are narrow enough to rest well away from the cavity margins, as shewn in the diagrams. Everything is now ready for cementing bridge in position. Use creamy cement, and before it sets wedge a piece of orange wood between the adjacent tooth and the open face crown, and on the other side between the facing and the crown to obviate any chance of the sides springing. Now burnish margins down and tags in thoroughly, remove any surplus cement from cavity, fill with gold and polish in the usual way.

It may be asked: Why not just fill with gold in manner indicated and place an ordinary oval face crown in position? This has its disadvantages. To carry the filling a safe distance from the edge of the band would mean an unnecessary show of gold. The band would have to be of the usual width for the sake of strength. Then, again, the cement is sure to wash out from under it if it ever gets there. This will form a pocket which will prove a menace to the filling; besides, sooner or later, it will be the cause of recession of the gum.

Another objection is that a certain amount of tooth substance is sacrificed in the formation of the cavity. It must be remembered, however, that this does not, to any material exent, weaken the abutment. The tissue removed is only that which would later on be attacked by caries, if the ordinary open-face crown was used.

If the radical method of using a Richmond crown were adopted, practically all this tooth substance would have to be removed in the preparation of the root.

I think that the method described holds out greater prospects of success than the usual form of open-face crown, and even should it fail, one can always fall back on a Richmond crown, as the root will not be in any way injured.

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

The 121st monthly meeting of the Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on 7th April, 1905.

There were present.—Mr. A. J. Wright (in the chair), Drs. A. J. Bennett, Wardell Johnson, Earle Newton and F. M. Wilkinson.

The minutes of the two previous meetings were read and confirmed.

REGISTRATION.—On the reports of the Examiners Mr. Harry Blakely (apprentice) was declared to have passed the final examination, and was admitted to practise as a dentist in Western Australia under Clause 10 (c) of the Act.

LICENSE FEES.—Mr. H. V. Mattingley's name was restored to the Register.

BREACHES OF THE ACT.—The Registrar reported that E. J. Fairlie had been charged on the 20th March with extracting teeth, and had been fined £1, with £1 3s. costs. Other alleged breaches were in course of investigation.

CORRESPONDENCE was received from Dr. Rigby, Dental Boards of South Australia, Queensland, and Victoria, Registrar-General, New Zealand, A. E. Heathcote, Perth Technical School, E. McGinn, Police at Norseman and Subiaco, S. G. Rundle and E. N. Blackmore.

FINANCE.—The bank certificate and the Board's cash book were produced and accounts were passed for payment.

FOREIGN DIPLOMAS.—The following resolution was passed:—"That in view of the lack of uniformity existing in the laws governing the admission of foreign or foreignly trained dentists to the Registers of the various States of Australia, this Board approach the Dental Board of every other State of this Commonwealth with the object of discussing the desirability and means of amending the different Acts to secure uniformity in this matter.

FRANCIS M. SYME, Registrar.

NEW ZEALAND.

Christchurch, N.Z., April 6, 1905.

(The Editor "Australian Journal of Dentistry.")

Sir,—Enclosed please find account of inaugural meeting of the Christchurch Odontological Society, together with the Rules and Bye-Laws.

The Society has been formed with the view, besides those mentioned in the Rules, of assisting at the inauguration of the New Zealand Dental Association in the beginning of June, and doing its best to obtain strict limitations of qualification for membership in accordance with the Rules of the British Dental Association.

If you can mention the formation of our society in your paper it would be deemed a favour. Yours faithfully,

W. Smale, Hon. Sec. C.O.S.

THE CHRISTCHURCH ODONTOLOGICAL SOCIETY

Inaugural Meeting.

At a meeting of Christchurch dentists, held at 206 Hereford Street, on March 20th, 1905, the following gentlemen were present:—Messrs. Thompson (in the chair), Ashworth, J. Bain, L. Bain, Biggs, Brown, Button, Cresswell, Foley, E. C. Fountain, J. H. Fountain, Harris (2), Irwin, Jennings, S. Jones, Nancarrow, Newell, Roberts, Smale, Talbot, and Drs. Jones and Paterson.

Apologies were received from Messrs. Atkinson and Turrell.

Minutes of the meeting on March 3rd, and of the Provisional Committee on the 7th, were read and confirmed.

The Provisional Committee reported that it considered that the rules of the proposed New Zealand Dental Association, as suggested by the Dunedin Association, should be adopted; and that June would be a more appropriate time for the Conference in Wellington than Easter.

The report was confirmed by the meeting.

The Secretary then read correspondence from the other centres relative to the proposed Conference.

Mr. Newell moved, Dr. Paterson seconded—"That this meeting adopt the rules in the possession of the Secretary, and form a Christchurch Dental Association under those rules."

The Name decided on was the Christchurch Odontological Society.

The annexed rules were adopted for the constitution and government of the Society.

Most of those present signified their intention of joining the Society.

The meeting then closed.

RULES AND BYE-LAWS.

1.—The name shall be the Christchurch Odontological Society (Registered). The objects for which the Society is formed are the promotion of dental and allied sciences, and the maintenance of the

honour and the interests of the dental profession by:—Periodical meetings of members, and the enforcement of the spirit and provisions of the Dentists' Act by such lawful means as may be necessary.

2.—Any person who may be resident in Christchurch or within sixty miles thereof, who shall pay his subscription, who shall sign agreement with these rules and bye-laws, and who is registered in the dentists' register of New Zealand, shall be eligible for election as a member of the Society, provided that he be of good character, that he does not conduct his practice by means of the exhibition of dental specimens, appliances, or apparatus in an open shop, or in a window, or in a show case exposed to the public inspection, or by means of public advertisement, or circulars describing modes of practice, or patented or secret processes; or by the publication of his scale of professional charges: or that he does not keep an open shop; or assume, or use any letters or title such as:—D.D.S., L.D.S., &c., &c., which may seen to imply the possession of any diploma, degree, or qualification to which he has no right. (Note.—Above Bye-law does not in any way apply to a simple card, consisting of name and address, diplomas, if any, hours of consultation, or removals.)

3.—Any registered practitioner not disqualified by any Bye-law, who shall be recommended as eligible by any three members of the Society (the recommendation of one being from personal knowledge), and who has signed the appended form of application for admission and agreement as to terms of membership, may be elected a member by the Committee.

4.—Any member may be removed from the Society by a resolution of the Committee, if carried by two-thirds of the members, subject to confirmation at the next annual meeting, and he shall thereupon cease to be a member. One month's notice of the intention to propose such a resolution, at a meeting of the Committee, shall be given to any member affected thereby.

Students shall be eligible for honorary members without fee and without voting power.

5.—The subscription for the maintenance of the Society shall be one guinea per annum, and shall be payable in advance on April 1st in each year. The names of those members who are in arrears for two subscriptions shall be notified to the Committee, by whom they may be struck off the list.

6.—The Officers shall consist of a President, a Vice-President, a Secretary and a Treasurer.

7.—The Committee shall consist of the officers and six other members, four shall form a quorum.

8.—The Officers and Committee shall be elected at the annual general meeting, and shall assume office at close of such meeting, and hold it until the next annual general meeting.

9.—The Chairman shall conduct all meetings with order and decision. He shall interpret all laws according to the strict letter,

and his decision shall be final. He shall have a deliberative as well as a casting vote.

10.—The Secretary shall summon all meetings in conformity with the Bye-laws of the Society. He shall take charge of all papers, conduct the correspondence, and record the minutes of all meetings in a book kept for the purpose.

11.—The Treasurer shall receive all money paid to the Society, and deposit the same in Bank of Australasia, Christchurch, to the credit of the Christchurch Odontological Society. All cheques against which shall be signed by the President and Treasurer. He shall pay all accounts duly passed, and prepare a balance-sheet, to be submitted to the annual meeting. He shall also, at the end of each quarter, report to the Committee of Management the names of all members who are in arrears with their subscriptions.

12.—The Committee of Management shall have the power at all times to inspect any books, accounts or records of the Society in possession of the Secretary or Treasurer, and all the property of the Society shall be held in trust by the Committee of Management for the time being.

13.—No member who shall cease to belong to the Society, either on resignation or otherwise, shall have any claim upon, or be entitled to participate in any of the effects or property belonging to the Society.

14.—The Committee of Management shall have charge of, and jurisdiction over, all business relating to the Society, but where matters of general interest are involved it must report to a general meeting. In all questions discussed by the Committee simple majority shall carry the motion.

15.—Should any office become vacant during the year it shall be filled at the next ordinary meeting, due notice of the vacancy being given previously to each member.

16.—The annual general meeting shall be held in the month of.....in each year at a convenient time.

17.—Ordinary general meetings shall be held monthly on the second Tuesday of each month at 8 p.m. Seven days' notice must be given by the Secretary to each member. Five shall form a quorum.

The following shall be the order of business:—

1. Notice calling the meeting.
2. Minutes of last meeting.
3. Notice of emergency business.
4. Discussion arising from minutes.
5. Report of Committee.
6. Exhibition of illustrative cases and pathological specimens, and the reading and discussion of scientific papers. Papers read before the meeting shall remain the property of the Society.
7. Adjourned business.

18.—A special meeting may be called at any time by the direction of the President (or in his absence by the Vice-President) on

the written request of three members. Three days' notice of such meeting shall be given to each member, and the business proposed to be transacted shall be specified in the notice. At these and all ordinary meetings country members (resident not less than ten miles from Christchurch) shall be allowed to record their votes on any specific point, in writing to the Secretary.

19.—All matters except "emergency business" to come before the meetings of the Society must be notified to the Secretary not later than fourteen days before the date of the meeting, and these matters must be specified on the notice calling the meeting. All motions must be in writing, and must be signed by the proposer and seconder. Any business brought before the meeting "on emergency" may not be considered unless three-fourths of the members present shall be in favour of doing so.

20.—No member shall speak more than once on any subject under discussion, unless he has the consent of the Chairman, except the proposer of any motion, who shall have the right of reply; and otherwise, in all proceedings, resort shall be had to the rules, forms and usages of the House of Representatives, which shall be followed as far as practicable.

21.—If any question should arise for which provision is not made in these Bye-laws, the Society shall have recourse to and be guided by the Bye-laws of the New Zealand Dental Association, and also of the British Dental Association.

22.—These Bye-laws shall not be altered, repealed or added to, except at a general meeting of the Society. A copy of the alteration, repeal or addition, signed by the proposer and seconder, shall be sent by the Secretary to each member at least a fortnight before such meeting.

A general meeting of the Christchurch Odontological Society was held at 206 Hereford Street, on March 20th. Present—Messrs. Thompson (in the chair), Ashworth, J. Bain, L. Bain, Biggs, Brown, Button, Foley, E. C. Fountain, J. H. Fountain, Jennings, S. Jones, Nancarrow, Newell, Roberts, Smale, Talbot, and Drs. Jones and Paterson.

Messrs. Atkinson and Turrell sent their apologies.

The following officers were elected:—President, Mr. Thompson; Vice-President, Mr. Atkinson; Committee: Drs. Paterson and Jones, Messrs. Newell, Talbot, Turrell and J. H. Fountain; Hon. Treasurer, Mr. Nancarrow; Hon. Secretary, Mr. Smale.

It was resolved:—

"That the first monthly meeting of the Christchurch Odontological Society be held on 9th May."

"That none of the matter discussed at any meeting of the Christchurch Odontological Society should be reported to the lay papers."

"That the Christchurch Odontological Society should recommend that the hours of 9—5 (Saturdays 9—1) be adopted by members."

"That the Secretary have the rules printed."

A vote of thanks to the Chairman closed the meeting.

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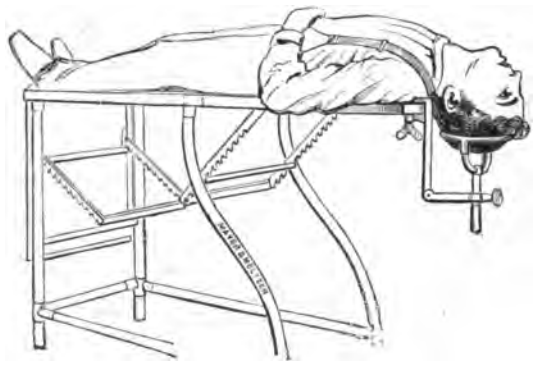

See Issue of this Journal, December 31, 1904, for article on above.

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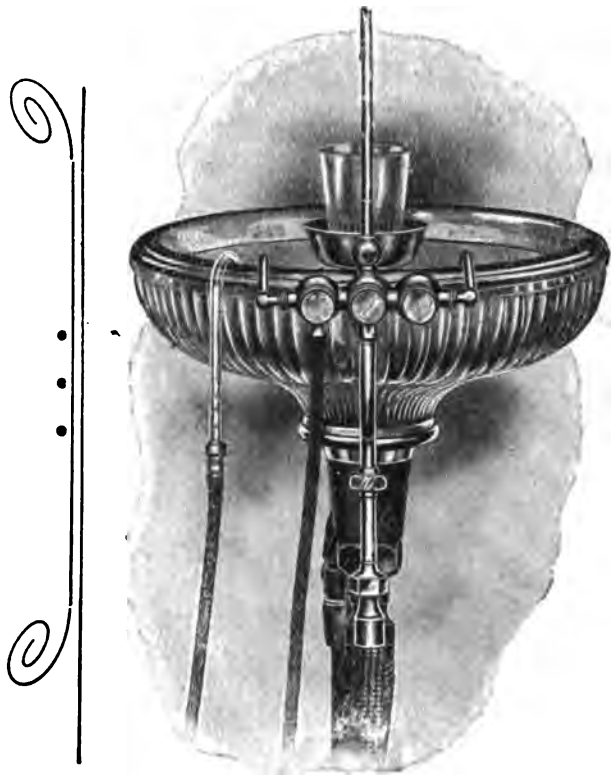

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"**Listerine Under the Microscope.**"—A tabulated exhibit of the action of Listerine upon inert laboratory compounds.

"**Comparative Value of Certain Antiseptics.**"—An interesting showing of the comparative value and availability of various antiseptics in the treatment of diseases of the oral cavity.

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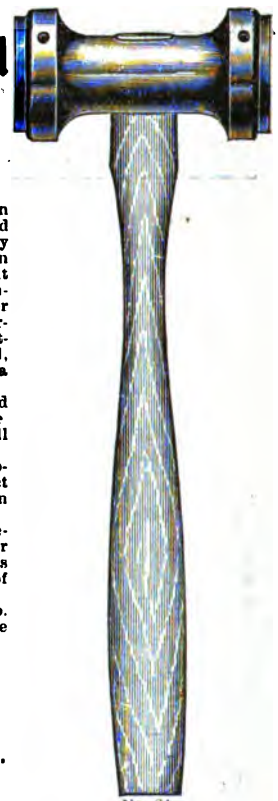

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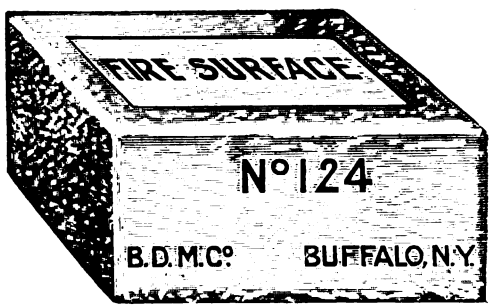

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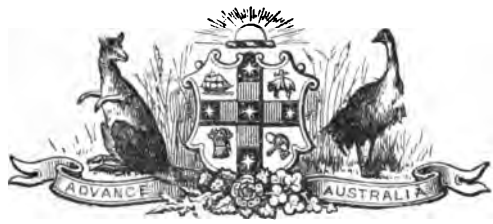

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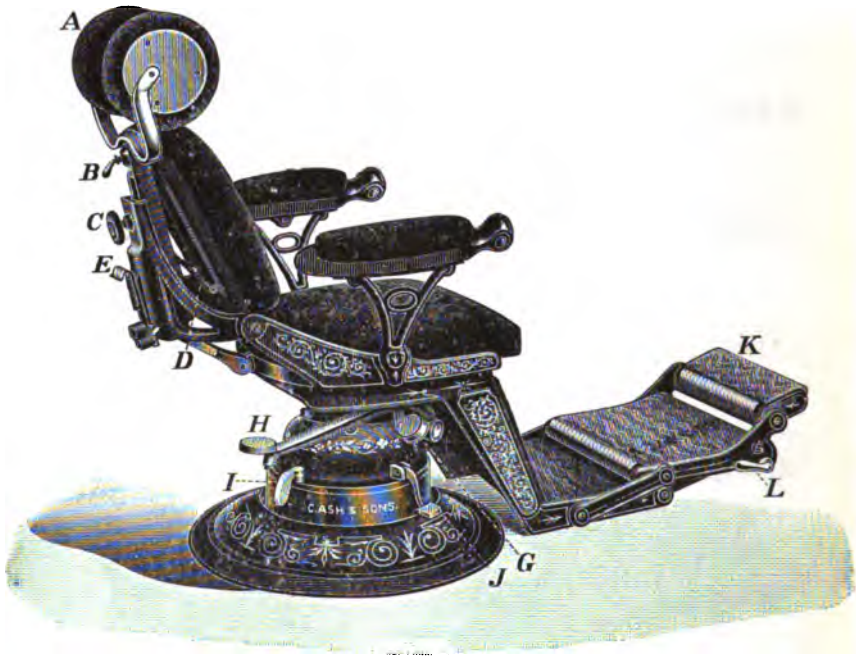

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] MAY 31, 1905. [No. 5.

EDITORIAL.

"Hands across the Sea" is a phrase that in many minds would appear to have been almost forgotten since the close of the lamentable Boer war.

Yet Rudyard Kipling's words, "For Brotherhood and Empire," still stir the blood of all the Anglo-Saxon race, and inspire us toward nobler aspirations. But are we sure that British right —with Scotch and Welsh assured, and even with the Irish characteristics thrown in—we ask, are we in the right by thus demanding the Motherhood and Brotherhood of Empire?

Yes! In the bonds of our common humanity it would appear so, especially, and at all events as exemplified in the great brotherhood which is universally expressed by the term "Medicine." And more especially as it is expressed in a recent number of the "Dental Surgeon," a weekly Review of Dental Science, published by Balliere, Tindall & Cox, of London (W.C.). In the editorial of this journal of March 25th, 1905, and under the title of "What We Think," there occurs this sentiment: "'Hands Across the Sea,' and thus, in a land so far across the ocean, we find our brothers are striving after the same high standard of professional ideals and their accomplishment as we are; and at the same time are working out their destiny hand in hand with us, though divided by a world of waters."

We thank our editorial confrere for his outspoken expression of opinion on our doings in Victoria. And we take this opportunity of adding that that editorial thought has already struck a chord in the hearts of the dental students of Victoria, and it is apparent that some of them, when the proper time arrives, will be proud to meet and attempt to thrash out some of the problems which agitate and no doubt vex the minds of many members of the dental profession in England.

We may here make a note of comment in repeating that it is the opinion of many members of the profession in England that the chief support of the "British Dental Association" comes from the active and vigorous endeavours of the members of its various branches.

Our "battle cry" is, and will be for the future—notwithstanding the great degeneracy towards State socialism which we see around us—"Uphold the right," the right of a definite and full standard of education, which shall compel a theoretical, practical and manipulative knowledge and dexterity in all that appertains to the practice of dentistry. It shall include a high-class standard for a pass examination, based upon the knowledge known to have been gained in the teaching of each subject. And that each examination—either viva voce, written, theoretical, or practical—shall be carried on in an impartial and definite manner, and not left to the chance vote of any supposed authoritative body.

Dentists and Anæsthetics.—"We have received a letter asking us if a registered dentist not necessarily holding any save a dental qualification, can legally administer anæsthetics. As far as legality goes, in the strict sense of the word anyone can administer anæsthetics so long as his purpose is not criminal, but medically speaking a distinction must be drawn between the administration of anæsthetics by a dentist and the same procedure by a qualified medical practitioner. Anæsthetics should only be given by properly qualified medical practitioners. The registered dentist as such is not in a position to conduct the administration of anæsthetics. We all know that nothing is easier than to produce anæsthesia upon a healthy subject in favourable circumstances, but nowadays at least we all recognise that the procedure may be a most difficult and dangerous one, one which should not be undertaken by any save a fully qualified medical man who has experience."—*Lancet.*

DENTAL BOARD OF VICTORIA.

Annual Report for year ending the 28th of February, 1905.

The Board held, during the year ending the 28th of February, 1905, thirteen meetings, and transacted all the ordinary business connected with their office. The following are the more important headings of the report:—

ELECTION OF OFFICE-BEARERS.

The Board unanimously re-elected Dr. J. W. Springthorpe, M.A., M.D., to be their President for the ensuing year, and Mr. W. Witt, J.P., to be their Honorary Treasurer. Dr. Springthorpe was subsequently re-appointed by the Governor-in-Council, the President of the Board.

RETIRING MEMBERS.

The two members of the Board who retired on the 28th of February, 1905, were Dr. J. W. Springthorpe, M.A., M.D., and Mr. W. Witt, J.P. They were subsequently re-appointed by the Governor-in-Council to be members of the Board for a further period of three years.

PRELIMINARY EXAMINATIONS.

During the year the Board held two preliminary examinations, viz., in October, 1904, and in February, 1905.

In October, 1904, twenty-two candidates presented themselves, of whom nine passed, viz.:—F. Allen, O. Behrend, M. M. Belcher, W. A. Dott, F. M. Kiel, W. J. Lumsden, R. D. McCallum, J. M. O'Donnell, and A. C. Tanner.

In February, 1905, thirty-one candidates presented themselves, of whom nineteen passed, viz.:—W. G. L. Alexander, A. E. B. Barnes, B. T. Bell, E. R. Bissett, H. J. Boyd, J. W. Brownbill, R. A. Cooper, J. J. Carroll, L. De Beer, E. M. Gowley, J. D. Keenan, C. M. Murrell, C. A. McCreery, A. McGibbon, F. D. Morgan, J. A. Nattrass, A. O. Nicholls, C. N. Roebuck, and H. Fredinnick.

"SINE CURRICULO" EXAMINATION.

During the year the Board held two "Sine Curriculo" examinations for students whose rights were preserved under Section 10 of the Dentists Act, 1898, No. 1595, viz.:—in July and in November, 1904.

At the July examination ten candidates presented themselves, of whom four passed, viz.:—B. H. Engel, S. Price, V. H. Cooper, and W. F. Marshall.

At the November examination nine candidates presented themselves, of whom five passed, viz.:—A. McCall, R. S. Poynter, T. Sealey, P. H. Trood, and W. F. J. Vernon.

EXAMINATIONS IN THE COURSE FOR THE L.D.S. DIPLOMA.

The Board held, in November, 1904, the examinations of the first, second, third, and fourth years for the Diploma of Licentiate of Dental Surgery of Victoria. The following candidates passed:—

FIRST YEAR L.D.S.—A. L. Beischer, P. Desmazures, T. A. De Ravin, E. S. Fischer, R. Fraser, J. E. Gosney, K. G. M. Hyslop, F. L. Kelly, W. C. Knight, A. Lambert, G. A. Payne, E. T. Stevens.

SECOND YEAR L.D.S.—C. E. Allen, G. Braham, R. Braham, Miss M. M. Crombie, J. E. Down, W. M. Eggleston, D. Govett, S. H. Marron, C. H. S. Ponsford, P. E. Sainsbury, B. J. Thompson, P. M. Wade, A. R. S. Wellman.

THIRD YEAR L.D.S.—D. McL. Austin, H. W. Bennett, S. F. C. Bindley, E. A. Davy, A. H. Dick, V. C. Jennens, R. McCann, K. Russell, R. A. Wright.

FOURTH YEAR L.D.S.—A. L. Baird, Miss F. B. Gray, A. S. Hughes, H. H. Hunter, C. F. O'Shea, F. M. Swan.

SUPPLEMENTARY EXAMINATIONS.

The Board held the supplementary examinations in the month of February, 1905, when the following candidates passed :—

FIRST YEAR.—F. G. Belcher, S. B. Croad, A. J. E. Frost, E. S. Gibson, F. C. Mattingly, H. McCooey, E. Storey.

SECOND YEAR.—N. N. S. Carter, Miss M. J. Rae.

THIRD YEAR.—F. M. Kiel, J. McDonough.

DIPLOMAED STUDENTS.

The students who successfully passed their Fourth Year become entitled to the Diploma of Licentiate of Dental Surgery of Victoria, and to registration as dentists. At a public function held at the Pianola Hall, Collins Street, Melbourne, on the 21st of December, 1904, the President of the Board presided, and presented the Diplomas.

AFFILIATION WITH THE UNIVERSITY.

In July last the Board, in response to the invitation of the Council of the University of Melbourne, appointed a Committee to meet a Committee of the Council, and also representatives of the Australian College of Dentistry and the Melbourne Dental Hospital, to discuss the question of the advisability of drawing up a scheme for the affiliation of the Australian College of Dentistry with the University of Melbourne, as suggested by the Royal Commission of the University. The Conference first met on the 18th of August, when, on behalf of the Board, there were present Dr. Springthorpe (in the chair), Dr. Mullen, Mr. McGregor, Mr. W. Witt, J.P., and the Registrar (Mr. E. Joske), and on behalf of the University Council, Professor Baldwin Spencer, Dr. Barrett, Dr. McFarland, and the Registrar of the University (Mr. Cornwall). The general outlines of the scheme for the affiliation of the Australian College of Dentistry with the University were considered and approved of, and a Sub-committee, consisting, on behalf of the Board, of Dr. Springthorpe, Dr. Mullen, and the Registrar, and, on behalf of the University, of Professor Baldwin Spencer and Mr. Cornwall, was appointed to draft the details.

The Sub-committee met on the 21st of August, and completed their work, and at a subsequent meeting of the Conference, held on the 23rd August, 1904, when there were again present, on behalf of the Board, the President (Dr. Springthorpe), Dr. Mullen, Mr. McGregor, Mr. Witt, and the Registrar, and, on behalf of the University, Professor Baldwin Spencer, Professor Allen, Dr. Barrett, and Mr. Cornwall, a unanimous agreement was arrived at.

The following were the proposals agreed to by the Conference :—

1. The University to institute a Faculty of Dentistry with all the usual powers of a Faculty, consisting of the members of the Dental Board, four representatives appointed by the Council of the University, one representative nominated by the Australian College of Dentistry, and one representative nominated by the staff of the Melbourne Dental Hospital. The Dean of the Faculty to be elected by the Faculty, the Registrar of the Board to be Secretary, and the records of the Faculty to be the property of the University.
2. The University to institute a Degree of Bachelor of Dental Surgery; the Curriculum to be that at present prescribed by the Dental Board, but the Matriculation Examination to be required as a Preliminary. The details to be described by the Faculty.
3. The Board to retain the fees paid by the students for annual examinations, but to pay examiners' fees and a contribution to be agreed upon from time to time for examination expenses. The Australian College of

Dentistry to retain all other students' fees as at present, and to pay the University as may be arranged for all work done at the University. The University to receive fees for Matriculation and for the degree (£3 3s.)

4. THE DENTAL BOARD TO UNDERTAKE:—
   (a) To make no alteration in the agreed upon educational requirements for registration without the approval of the Council of the University, and to accept the Faculty of Dentistry as its adviser in all matters affecting dental education.
   (b) That the standard of its Preliminary Examination shall be at least equal to that of the Matriculation Examination.
   (c) That it will appoint the same examiners for the license for registration as may be appointed for the University examinations by the Council.
5. THE AUSTRALIAN COLLEGE OF DENTISTRY TO UNDERTAKE:—
   (a) To provide for the carrying out of those portions of the Curriculum which concern itself in accordance with the recommendations of the Faculty of Dentistry.
   (b) To grant, after the coming into operation of this agreement, no Degree, Diploma, or other document implying any distinctive educational qualification other than certificates of attendance upon lectures, demonstrations, and hospital practice.
   (c) To permit inspection of the College and the Melbourne Dental Hospital by the Council of the University at such times and by such persons as the Council of the University shall direct.
   (d) To appoint its lecturers, demonstrators and the teaching staff of the College and of the Melbourne Dental Hospital annually, and only after approval by the Council of the University after consultation with the Faculty of Dentistry.
   (e) To allow the Council of the University to appoint two members of the Council of the College.
   (f) The Lecturers on Anatomy, Physiology and Pathology to be demonstrators at the University, the lecturers filling these positions to be re-appointed for the present, the lectures and demonstrations in these subjects to be held at the University.
6. On condition of the College agreeing to the foregoing, the University to provide for the affiliation of the Australian College of Dentistry with the University.
7. The amendments of Statutes and Regulations necessary to carry these proposals into effect to be drafted by the University representatives and submitted to the Dental Board.

At the Board meeting of the 26th of August, 1904, when there were present the President (Dr. Springthorpe) in the chair, Dr. Mullen, Dr. A. P. Merrill, L.D.S., Mr. D. McGregor, Mr. Witt, J.P., and the Registrar, the foregoing proposals were unanimously approved and adopted by the Board. They were subsequently also approved of by both the Council and the Senate of the University, and by the Council of the Australian College of Dentistry. The result has been the establishment of the Faculty of Dentistry of the University, the institution of the Degree of Bachelor of Dental Surgery, and the affiliation of the Australian College of Dentistry to the University, although the formal Statute providing for such affiliation has still to be passed by the University.

AMENDMENT OF THE EDUCATIONAL REGULATIONS.

During the year the Board amended the Educational Curriculum by bringing it up to the standard of the requirements of the General Medical Council of the United Kingdom, and did so with the object of securing recognition of the L.D.S. Diploma and the consequent registration of Victorian graduates throughout the British Empire.

RECOGNITION IN GREAT BRITAIN.

In renewing the application to the General Medical Council for recognition of the L.D.S. Diploma, the very able letter forwarded by Dr. Springthorpe, on the 21st day of September, 1904, has already appeared in the "Journal."

Dental Board of Victoria.

Statement of Receipts and Expenditure for Year ending the 28th of February, 1905.

RECEIPTS.				EXPENDITURE.			
Credit balance from last year	£521	18	8	Registrar's Salary	£216	13	4
Fees—Examination	478	16	0	Examiner's Fees	127	1	0
Registration	115	10	0	Expenses in connection with examinations ..	27	11	9
Diplomas	31	10	0	Printing and Typewriting	81	7	2
Certificates	5	15	0	Rent	21	3	0
Admission *ad eundem statum*	2	2	0	Clerical assistance	20	0	0
Bank interest	10	17	7	Postages, Cablegrams, etc.	12	15	6
Australian College of Dentistry, Share of telephone	4	10	0	Stationery	10	8	2
Sales of Dental Register	1	15	0	Telephone, and installation of new telephone ..	9	10	0
Filing Articles of Apprenticeship	1	1	0	Returning Officers' Fees and Expenses.. ..	2	10	0
Fines	1	0	0	Advertisements	4	15	0
Miscellaneous	0	6	0	Auditors' Fees	4	4	0
				Law Costs	4	1	6
				Refund Articles of Apprenticeship	1	1	0
				Reporter	1	1	0
				Sundries	12	12	3
				Credit Balance	668	6	7
	£1175	1	3		£1175	1	3

WILLIAM WITT, Hon. Treasurer.

Examined and found correct,

GEO. GILLIMAN, Govt. Licensed Auditor,
A. T DWYER, A.F.I.A., } AUDITORS.

24th February, 1905.

We have examined the books and vouchers of the Dental Board of Victoria, and find same correct to date,

GEO. GILLIMAN, Govt. Licensed Auditor,
A. T. DWYER, A.F.I.A , } AUDITORS.

24th February, 1905.

THE ODONTOLOGICAL SOCIETY OF VICTORIA

The postponed ordinary monthly meeting of this Society was held in the Rooms, Austral Buildings, 117 Collins St., on Tuesday, May 2nd, at 8 p.m.

The President (Mr. T. F. W. Hall), occupied the chair, and there was a fair attendance of members. Mr. Stephens, a dental practitioner of Maryborough, Queensland, was also present and made welcome.

Election of Member.

The Hon. Secretary was appointed scrutineer. A. J. Prytz, D.D.S., of 85 Collins St., was unanimously elected a member.

Correspondence.

The Hon. Sec. read to the meeting a letter received from Mr. J. S. Tatterson, a member of the Society, and Mr. C. Trood, dentist, of Sale. These gentlemen wrote to bring before the notice of members the fact that one Pascoe, an unregistered man, conducting an itinerant practice, had on the date of writing been heavily fined for illegally practising dentistry. It was pointed out that a member of the police force had shown considerable zeal and ability in gaining such evidence as to bring about the conviction of the offender, and the Society was asked if they could donate towards a subscription which Messrs. Tatterson and Trood had initiated.

On the motion of Mr. McGregor, seconded by Mr. Wilkinson, it was decided to donate £1 1s. (one guinea) to the Dental Defence Association, with the request that the amount be handed over to the fund as mentioned.—Carried.

Mr. R. C. Thomas wrote tendering his resignation as a member of the Society. On the motion of Mr. McGregor, seconded by Mr. Hall, the resignation of Mr. Thomas was accepted with regret.

Mr. Hall then read a paper entitled

"THE AMALGAM HABIT, OR A WHITE AUSTRALIA."

BY W. T. SHANASY, D.D.S., OF ADELAIDE.

There is no doubting the fact that Australia is, dentally speaking, suffering from chronic black eye, or rather chronic black teeth. While our statesmen are in arms painting Australia racially white, our dentists are diametrically opposing the policy of bleaching

our great country, and otherwise modifying the black stain upon our professional character. That amalgam has been poked in anywhere and everywhere is only too apparent to us all. That the "black curse" is with us "good and hard" needs but very little reflection to convince us; that thousands of fillings have been done with amalgam where gold should have been placed, both for its tooth-saving qualities and its appearance, is also true. We have heard of "black-eyed Susan," but would prefer that that stigma be transformed into "black-toothed Susan"; for, truth to tell, many of our fair damsels could be well so named after a course of visits to our dental surgeons who are wielders of the black stuff, to the almost entire exclusion of everything else.

It is not my purpose to resurrect the old historic amalgam war; nor am I a relict of the days when amalgam was slowly but surely fighting its way into favour. I believe in amalgam, and use very much of it, and at the outset will admit using more of it than I care to, or would if things were different from what they are, and the people were educated up to better things. At the same time, where I know gold to be strongly indicated, I have found that a decision in favour of inserting gold has nearly always met with acquiescence on the part of the patient, and a gold filling is always much more valued by them than a filling of any other kind.

It is almost beyond belief that copper amalgam should have to be mentioned in this connection, for in all conscience that is a thing of the past for ordinary use, the one exception being in the temporary teeth of children. Black's experiments with copper amalgam showed that shrinkage was at zero in it, but his last words on copper amalgam were to this effect: "After our long experience with copper amalgam we relinquish it with regret." Proselytes of Black in his now classical articles on amalgam, and with his declaration still ringing in their ears, look with wonder at anybody using copper amalgam for general use. Nevertheless it is still used, and it still blackens teeth and—reputations. If anybody could show us truly that copper amalgam had more points in its favour than the ternary, quaternary or the quinary dental amalgam alloys, we would even then promise him that we would never again use copper amalgam. That amalgam is often a slipshod substitute for gold is a fact. That amalgam is used because

the proper cavity preparation for gold is not understood is a fact. That amalgam is used because the operator knows he fails with gold, where he has a reasonable chance to succeed with amalgam, is also a fact, and one in favour of the operator. That amalgam is used by the busy man because it is quick and easy; and if he gets enough cavities to do with it, it gives him a better commercial return, is true. But then the man who has the amalgam habit very badly is not, nor need he ever hope to be, moderately expert in the use of gold. A practice can be run to the dogs on amalgam, and a gold filling be scarcely ever inserted, the dentist not only losing what skill he may have been possessed of, but also loses caste with his patients in a very great degree. The best gold operator that ever lived, if he became afflicted with the amalgam habit, will soon lose his skill and degenerate as a gold worker. Where then lies the reason for the use of amalgam in overwhelming excess of gold? It is not entirely with the patient's unwillingness to pay. I believe it to be mainly and principally with the operator himself; and here you will bear with me in what I have to say, for I say it with all due respect for those present, and as a warning to those young men who are now entering the profession. It is this: In nine out of ten times, the man with the amalgam habit does not know the business of filling teeth with gold. The man possessed of an automatic mallet and a few cohesive pellets cannot in the broad sense be called a gold-filler. Gold filling is a broad and comprehensive study, and well worthy the continued application of every man who calls himself a dentist. It is an art in which great improvement should manifest itself as the years go on. He should be expert in the use of all forms of gold and all ways of packing it; and should bring to his work the very best combination of skill and knowledge for the one little cavity he has in hand. An experienced and trained hand will fill some cavities with gold in almost the time it takes to make an amalgam filling, which is far inferior to the gold. Other cavities are long and slow, and require the strongest and densest filling of which gold is capable. If the reader wishes to discover that his fingers are all thumbs let him take (I will presume that he is familiar with the automatic mallet only) a hand mallet, with hand pluggers and No. 30 rolled gold, and fill a cavity from beginning to end. It is done constantly

by some operators, and some cavities demand the strength of heavy gold, and the sure condensation of the hand mallet. Or, if he wants to find out how little he knows, and how limited his experience with the fascinating properties of gold, and its infallible calking properties, let him get a book of the old-fashioned non-cohesive gold which the early fathers used, and upon which American dentistry had its first foundations, and go ahead and fill a cavity with it. "Obsolete," you say. Not so. There are men using it to-day; and it has its place in the daily round of the worker in gold. And to those who have not used it, my language beggars a description of the fascinating pleasure; of the difficulty which practice alone overcomes; of the time saved; and the tooth-saving operations possible with it, not to forget the velvet feel of it when the burnisher is applied to its surface. "Skill?" Yes; but others have mastered it, and so can you. And, remember, any fool can use cohesive gold, so it is not such a great thing to fill up the cavity with cohesive gold. What is required is an absolute fit and a filling that will save the tooth.

I do not know that it has been generally noticed that a comprehensive text book on gold filling has not yet been issued. Ottolengin wrote a good book, and helped us in Australia very much. But then he had no use for non-cohesive gold. No one man has written a book containing the last word on gold fillings. Johnson's work is first-class, and, while he uses non-cohesive gold a little, says nothing about its entire use in certain cavities.

The antidote for amalgam is to teach students to become expert with gold. There is gold in the very atmosphere of American dental colleges, and the students strive to and do achieve great things in gold filling. Cavities are so prepared that gold will almost drop into them. The old methods of driving gold around corners with corkscrew pluggers has gone. It would be almost impossible to use the heavy rolled gold in that way. While all dentists use gold more or less, there are not very many who become expert with it. This is due in part to confining themselves to one method and the necessary limitations of one form of gold. The use of gold in all its forms is an exceedingly fascinating art, and amalgam becomes very prosy in comparison with it. Moreover, who ever made a reputation on amalgam fillings? The two greatest

reputations ever made in this branch of dentistry were built up by Varney and Webb on gold, and No. 30 at that. Who looks a second time at a number of amalgam fillings in any mouth, be they polished like mirrors, and the cavities, every one of them, shaped scientifically enough to make the father of extension for prevention admire them? An amalgam filling never will attract the attention of a brother dentist in the same manner that a gold filling will. It is amalgam wherever seen and whoever inserts it. It is a plastic, and there is no skill worthy the name as compared to gold, and that in this sense is the best and the worst that can be said for it. If one hundred dentists determined each to place one gold filling weekly, where ordinarily he would have placed amalgam, there would be over five thousand gold fillings inserted every year. This would be the thin end of the wedge, and would ultimately lead to a better condition in the mouths of our patients.

The paper met with the general commendation of all present, and a useful discussion followed, and, while many members had kindlier thoughts of amalgam as a filling material, they fully recognised the necessity for a more extensive use of gold.

The President moved that a hearty vote of thanks be accorded Dr. Shanasy. The motion was carried with acclamation, and the meeting adjourned.

A. L. Elvins, Hon. Sec.

COLLEGE NOTES.

Dental Students' Society.

On Thursday, May 4th, at 8 p.m., the second general meeting of the above Society was held in the lecture hall of the Australian College of Dentistry. The President of the Society—W. Orr Gray, L D.S., D.D.S. -- occupied the chair, and there were about fifty students present. After the minutes of the previous general meeting, held on March 31st, had been read and confirmed, the chairman introduced Dr. Springthorpe, Dean of the Faculty of Dentistry, and President of the Dental Board of Victoria, who had kindly consented to come to the meeting and explain matters to the students in regard to the L.D.S. and

B.D.S. degrees, which were now the standard in Victoria. Dr. Springthorpe gave us practically a life history of dentistry in this State, and told of the many troubles the Dental Board had met with at first.

He then explained the affiliation with the Melbourne University, and also of the institution of the B.D.S. degree.

Of the recognition of the Victorian degree in England, Dr. Springthorpe said much, and made many points clear which had before been doubtful in the minds of many of the students. With regard to the requirements of the Faculty for the granting of the B.D.S. degree to the present L.D.S. students, Dr. Springthorpe advised those students who had not matriculated or had not taken up the necessary subjects to do so at once, and also to pass in the extra subjects required by the present curriculum over and above any passed by them during their course, and then to make application to the Faculty in a proper manner, laying before them the facts of all examinations passed, and they no doubt would receive the B.D.S. degree. Dr. Springthorpe explained that if a present fourth year L.D.S. student passed in all the subjects required by the Faculty for the B.D.S. degree, and also had passed matriculation, he saw no reason why he could not have the B.D.S. degree conferred on him at the University Commencement next April.

Dr. Springthorpe was literally besieged with questions at the termination of his splendid address, and he answered them all to the satisfaction of the members who asked them.

The Chairman, in moving a hearty vote of thanks to Dr. Springthorpe, said that it was quite a pleasure to have the Dean of the Faculty there that evening, and that for the occasion we could not have had a better man than he, as he was so well versed on the subject.

Mr. B. J. Thompson seconded the motion, which was carried with cheers and acclamation.

Dr. Springthorpe thanked the meeting, and said that if, on any future occasion, the dental students required any explanation on any matter, that they had only to say so and he would give the necessary information so far as lay in his power.

The general business was then dealt with, and a most successful meeting terminated.

With regard to the attendance (about fifty), which was one of the largest yet seen, it was extremely gratifying to the committee to note the numbers in which the first and second year students particularly attended. This was the first occasion on which Dr. Springthorpe had attended a meeting of the Dental Students' Society, and the committee are quite satisfied that those who attended benefited largely from what Dr. Springthorpe told them.

The next meeting of the Society will be held on Friday, June 16th, at 8 p.m. Dr. Gray, L.D.S., D.D.S. (the President), will read a paper on Somnoform. It is to be hoped that the attendance will be still larger than that of May 4th. The committee would be greatly pleased if the past graduates of the College would would make an effort to attend the meetings of the Society, as they are all eligible for membership. A hearty invitation is extended to all those interested for the meeting to be held on June 16th. Somnoform has been used to great advantage at the Hospital, and the committee feel certain that all those who attend will not be sorry for so doing.

In the "Dental Surgeon" for March a leading article appeared entitled "Hands across the Sea," and it was gratifying in the extreme to note the feelings of the writer towards the Victorian dental student. May this good feeling continue and be the cause of binding the colony still stronger to the mother-land.

At the University sports held on May 15th and 17th, there were a goodly number of dental students competing, and, although they were not very successful, yet we have good reason to hope that next year they will be able to account for many prizes. Mr. V. C. Jennens, one of our fourth year men, won the three mile handicap from 50 yards, his time being 16 min. 49 secs.—we think a very creditable performance. Mr. T. H. Morgan, a first year student, was placed third in the long jump, and the Australian College of Dentistry team ran third in the flag race. For some years past the dental students have more than held their own in both the football and cricket fields, and this year we have every promise of getting together a very good team of footballers, and, when the cricket season commences, efforts will be made to try

conclusions with the dental practitioners, and to make the fixture an annual one

On Wednesday, May 24th, a football match was played between the A.C.D. team and St. Francis Xavier's, Kew, on the ground of the latter. After a very enjoyable game the Dentals ran out winners, the scores being 10 goals 10 behinds to 4 goals 5 behinds. The best man on the Dental side was Naylor, who never made a mistake, either while roving or in a place. Next to him it would be hard to separate Wright, McDonough, Humphries, Thompson, Parrett, McCooey, Allen and Mattingley, while the balance of the team acquitted themselves admirably. Goalkickers: Wright (5), Allen (2) Jennens, Parrett, Lyon. Kew goal-kickers: De Bavay (2), Bride, Connell.

In the College Notes included in the last issue of the "Australian Journal of Dentistry," the list of prize donors to our Society was published, but, through an oversight, the name of Messrs. Mayer, Meltzer and Jackson was omitted. That firm, as in all previous years, has given a prize to the value of £2 2s.

The Patron's Prize, a medal valued at £5 5s., for the best "original paper appertaining to Dental Surgery for the Conservation of the Natural Teeth," open only to senior students, has again been offered by Dr. Merrill, and it is greatly appreciated.

We hope to publish in the next issue of the College Notes all the conditions under which the various prizes already promised may be gained.

The cinderella dance, to be held in the Masonic Hall, Collins Street, on Saturday, June 17th, promises to be a gigantic success. and the committee, consisting of Mesdames R. A. Cooper and E. J. Dillon, Messrs. Austin, Bindley, Braham, Ffrost, Grant, Jennens, McDonough, and the joint hon. secs., Messrs. H. R. Lyon and V. J. Thompson, are working strenuously to make it so. The price of the tickets has been fixed at: Double, 7s. 6d.; single, 5s. Di Gilio's band has been engaged, and the catering is in the hands of R. Ovens, of Moonee Ponds. Tickets, for which early application is requested, may be had from any member of the committee mentioned above.

SUCCESSFUL PROSECUTION BY THE DENTAL BOARD, AT SALE, IN GIPPSLAND.

A case of great interest to the dental profession was heard at the Sale Police Court on Friday, before Mr. Cresswell, P.M., when Mr. Ernest Joske, the Registrar of the Dental Board of Victoria, proceeded against H. Pasco Thomas for advertising and practising as a dentist, without being registered according to law.

Mr. George H. Wise, instructed by the Dental Board of Victoria, conducted the prosecution, and Mr. Atkins, of Atkins and Son, Melbourne, appeared for defendant.

At the outset Mr. Atkins said his client pleaded guilty, as he admitted the technical offence.

Mr. Wise said, and the Police Magistrate concurred, that the plea could not be accepted in the absence of the accused, and the evidence would have to be heard. He was instructed to ask that the full penalty be imposed, as he would be able to show that defendant had stated his earnings at such a sum that even the full penalty would be insufficient. It would, according to his own statement, pay him to pay the penalty if he did the same business he had been doing. He called—

S. B. Thurman, draper, Sale, deposed that on the 5th April he went to the Criterion Hotel and saw the defendant, as he wanted teeth extracted. Went next day and had 17 teeth out with gas. Paid £1 deposit and got a receipt.

Mr. Atkins did not see the necessity for going into all these details. As long as he used the word dentist, it was an offence.

Mr. Wise said that unless they had the details he did not see how his Worship was going to fix on the penalty.

Witness: The receipt was signed "For W. E. Thomas." There was no price fixed and the teeth were to be sent from Melbourne in three months.

To Mr. Atkins: I believe he was acting for Dr. Thomas, his principal. I was not misled.

To Mr. Wise: I did not know till I got the receipt that he was not Dr. W. E. Thomas. Then thought he was one of the assistants.

Senior-Constable Noble on the 7th April, in private clothes, went

to the Criterion Hotel. Saw a man there and asked him—"Are you Dr. Thomas?" He replied, "Yes." I said—"I want you to look at my teeth." He looked, and said two should come out at once. I said "not to-night." He said—"Have them out; there will be no pain." I said "Are you Dr. W. E. Thomas?" He said "Yes—at least I'm his brother. I am a doctor too; I am just as good as he is. You had better let me pull them out." I said "No; not to-night." He said—"I pulled out 21 or 23 for Mr. Thurman." I said—"Good business." He said, "I pull out 500 in a day; sometimes 100 before breakfast. I earn about £25 per week. Up in Stawell I made £50 one week, and I am only 24 years of age. I had to pay £300 down to learn the profession." He said he was at Sydney first, and then went to Ohio. America was the home of dentistry. He showed me the butts of his cheques, showing he had sent £41 away. I said, "You're doing well. I am thinking of putting one of my boys to the dentistry. I thought of sending him to Mr. Trood." He said, "Don't send him to Trood." He showed me a picture of Dr. W. E. Thomas's factory in Melbourne, and pointed out one figure as "his brother, Dr. W. E. Thomas." He said, "Do you see that bag? That is the gas." I said, "Laughing gas makes you laugh like billy oh! doesn't it." He said, "No, it is not laughing gas. Being a doctor I can administer this gas, and if anyone died in the chair, I could give a certificate, and he would be buried immediately." I said, "You're like a doctor, then?" He said, "Better than a doctor!" I said, "My word, you have a lot of power." He said a lot about L.R.C.P. and F.R.C.S. He said pulling out teeth was nothing; that America was far ahead of England in dentistry. I then left.

The P.M.; He let you go without pulling out your teeth?

Witness: Yes (laughter), and I've had neuralgia ever since. (Laughter.)

The P.M.: He ought to have pulled them all out. (Laughter.)

Witness: At Warragul I saw defendant at Kelleher's Hotel. I said, "I am Senior-Constable Noble. Your name is H. Pasco Thomas, dentist?" He said, "Yes." I said, "You don't remember seeing me?" He said he did not. Then reminded him of the interview at the Criterion Hotel. Served him with the summons.

He said, "Suppose I don't turn up, what will they do?" I said, "Fine you £20."

Mr. Atkins: Did you let him believe you wanted to apprentice your son to a dentist?

Witness: Yes.

Mr. Atkins: Was he telling you all about it?

Witness: Well, I think he was blowing his own trumpet, as the saying is. Did not think he was Dr. Thomas.

Mr. Wise put in register to show that defendant was not registered.

Mr. Atkins said they admitted the technical breach. The Act was to protect the public from quacks, but his client was not a quack, as he was registered in New South Wales. He was not a brother of Dr. Thomas's, and the reason he had used the name "Thomas" was that Dr. W. E. Thomas had several representatives, and it was convenient to address their letters in that way.

Mr. Wise: He said he was Dr. Thomas.

Mr. Atkins said it was really a case of professional jealousy. Certain facts took place with a local dentist—Trood.

Mr. Wise: I know nothing about Trood. My instructions are from the Dental Board.

Mr. Atkins asked for a nominal fine, as his client did not do any harm.

Mr. Wise: If you say that this can be done and only a nominal fine imposed, then the Act is useless.

Mr. Cresswell said the case had been clearly proved. He thought he should hardly take into consideration the amount of money he earned in fixing the penalty. If he were convicted again, the penalty would be £5 a day. As it was his first offence he would be fined £10.

Mr. Wise asked for costs.

Mr. Cresswell, P.M., on making up the costs, said he would allow £3/1/- and reduce the penalty to £7, with £3/1/- costs, in default distress.

Mr. Atkins asked for a fortnight's time.

Mr. Wise objected. A wire to Dr. Thomas should get a cheque back that night.

Twenty-four hours allowed. The fine and costs were paid the same day.—*Gippsland Times.*

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

Report of the 122nd monthly meeting, held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, the 5th May, at 5.15 p.m. There were present—Dr. Astles (President) in the chair, Drs. A. J. Bennett, Earle Newton, F. M. Wilkinson and Mr. A. J. Wright.

REGISTRATION.—The application of James Thomas Omit, L.D.S., Edin., was granted under Section 10 (a) of the Act.

BREACHES OF THE ACT.—The Registrar reported that on the 8th April C. W. Deague was prosecuted at Esperance, and a fine of £20 was imposed (second offence). On the 20th April T. W. Owen, at the Perth Police Court, was fined £2 and £1 3s. costs for practising at Maylands.

CORRESPONDENCE was received from James & Darbyshire, the Colonial Secretary, Dental Board of Victoria, and Dr. Rigby.

FINANCE.—The Board's cash book and the bank certificate were laid on the table, and accounts were passed for payment.

FRANCIS M. SYME, Registrar.

QUEENSLAND.

DENTAL BOARD OF QUEENSLAND.

General meeting held at Board's office, 39 Adelaide St., Brisbane, on Tuesday, May 2nd, 1905. Present—The President (Mr. D. R. Eden), Dr. A. B. Brockway, Mr. E. F. Hughes, Dr. E. T. White, D.D.S., and Mr. H. S. F. Moran.

The minutes of the previous meeting were read by the Registrar and confirmed by the Board.

The Registrar produced the bank pass book, and the Hon. Treasurer reported a satisfactory credit balance and accounts were passed for payment.

Correspondence was read and dealt with, special attention being given to a letter from the Registrar of the Trinity College, Toronto, Canada, with reference to the D.D.S. granted by that College.

Mr. A. H. Sagar, of Brisbane, was registered as a dentist, and Mr. C. G. T. Murray, of Brisbane, as an apprentice.

The Examiner in Mechanical Dentistry (theory) for the forthcoming examination was appointed.

It was resolved to purchase for the use of the Board at its meetings copies of the dental text books prescribed for the various examinations.

T. B. HUNTER, Registrar.

ODONTOLOGICAL SOCIETY OF QUEENSLAND.

To Dr. Arnold Gibson, D.D.S., may be given the honour of initiating the movement to the formation of the Odontological Society of Queensland.

On the evening of March 14th Dr. Gibson invited the reputable members of the profession to meet at his rooms, and have a chat as to the advisability of forming a society.

The following practitioners were present—Messrs. D. R. Eden, A. Dodds, F. Hughes, W. G. Henderson, W. Parker, L.D.S., C. Webb and Dr. C. W. Haworth.

It was then decided to form an Odontological Society of Queensland, the gentlemen present to form the nucleus.

A committee was formed to draw up rules, and were made in outline similar to the rules of the Victorian Society. The rules, with modifications, were adopted at a subsequent meeting.

The following members were elected office-bearers for 1905:—President, Mr. D. R. Eden; Vice-President, Mr. F. Hughes; Secretary, Dr. A. Gibson, L.D.S.; Treasurer, Mr. W. Parker, L.D.S. England.

A programme was drawn out for the coming session, meetings to be held on the third Tuesday of each month.

Until suitable rooms be obtained, it was decided to hold the meeting at the various rooms of the members.

At the time of the annual Agricultural, Pastoral, and Industrial Exhibition in August, a special meeting is to be arranged to suit the visiting dentists to the show, and so make the August meeting one of special interest.

The rules of the Society are now in booklet form and may be had on application to the secretary.

The President, Mr. D. R. Eden, sent out printed invitations to the members of the Society, President of the Medical Society, members of the Dental Board, and several of the leading medical practitioners, to meet him at dinner to celebrate the opening of the Odontological Society of Queensland. The invitations were gladly accepted, and a pleasant gathering took place at the Cafe Eschanhagen on Tuesday evening, April 18th.

The host delivered his "Presidential Address," the foundation speech of the Society.

Toasts to "The King," "Ourselves," "Kindred Societies," "Dental Board" and "Visitors" were duly honoured, and finally, with much ardour, to "Our President."

Mr. Eden, during his reply, gave a few reminiscences of his early practice—extending over 30 years ago—in Queensland and Northern New South Wales. His experiences were thrilling and amusing, and showed not only a line of evolution in dentistry in these States, but also the changed conditions in modes of transit and conditions of life in these districts.

The evening was one of much conviviality, and a fraternal spirit was shown alike to medical and dental practitioners.

C. W. Haworth, D.D.S., Harv.

Brisbane, May 9th.

The May meeting of the Society was held in the rooms of Mr. D. R. Eden, Town Hall Chambers, Queen St., Brisbane, on Tuesday evening, May 16th.

Mr. A. McNaught, of Bundaberg, was proposed for membership by Dr. E. T. White.

On a ballot being taken, Mr. F. Barnett, of Ipswich, was duly elected a member of the Society.

A letter was received from the Queensland branch of the British Medical Association, inviting the members of the Queensland Odontological Society to their meeting in the Brisbane School of Arts, on the 2nd of June, when Mr. W. Parker, L.D.S. Eng., will read a paper on "Dental Caries and Oral Hygiene." The invita-

tion was cordially received and accepted. The President then called on Dr. Arnold Gibson, to read a paper on

"REMOVABLE BRIDGEWORK,"

BY ARNOLD E. GIBSON, D.D.S.

With the exception possibly of porcelain work, there is no branch of dentistry about which a greater diversity of opinion exists than bridgework, and certainly none that has suffered more at the hands of incompetent operators. Much has been said and written on the subject, both upholding and condemning the work, and strong arguments have been put forward on both sides. Bridgework may be classified under two headings, viz., "fixed," and "removable." the former being the class most universally adopted, and by far the greater percentage of practitioners who condemn this class of work, do so on hygienic principles.

With fixed bridgework you are all more or less familiar, and I will not waste your time in attempting to describe the many forms in general use to-day, but will endeavour to describe the construction of a "removable bridge."

The great objection to "fixed" bridges, namely, want of cleanliness, is entirely removed by the insertion in the mouth of a "removable" bridge, as the patient is able from time to time to remove the piece and thoroughly cleanse it. Should a facing break, repair is very easily effected by the removal of the piece and the placing of a new facing. Dr. Bonwill, in 1873, introduced a form of removable bridge, but it was not until many years later before a satisfactory method came into use. The usual form of removable bridge has abutment crowns made of cylinders, which telescope over ferrules permanently attached to the teeth, for molars and bicuspids, and by means of the Richmond crown, with a split pin for the anterior teeth. Under the heading of removable bridges should be placed the saddle bridge. This is an appliance generally used to restore the molars and bicuspids, and the bicuspids are the abutments most frequently used. This class of work is a combination of plate and bridge work, and is not likely to ever come into very general use, owing to the necessity of very frequent removal for cleansing purposes, the great strain on the abutments, and the great manipulative ability required for its construction. I will now attempt to describe the construction of a removable

bridge, and the preparation of the abutments. The trimming of the teeth is the most important part of the whole operation, and if this be not properly done, the case will prove a failure in a very short time. Assuming that the molars and bicuspids used are not badly broken down, the first proceeding is to grind down the occlusal surface. This is best accomplished by cutting the entire top of the tooth off about a third or a fourth of the distance down, by means of a diamond disc, or one of Leaming's fine vulcan discs. The next proceeding is to trim the sides of the tooth until they are slightly smaller at the top than the gum margin, and extending about a sixteenth of an inch below the gum margin. Great care must be taken that the two abutments are parallel, otherwise it will be impossible to insert the bridge, or once inserted, it will be impossible to remove it. It is a much-discussed question as to whether a pulp should be destroyed in a fairly sound tooth before crowning with an all gold crown, but in my limited experience I have never seen any ill effects follow the crowning of a live tooth.

The anterior teeth are prepared in the same manner as for a Richmond crown, enlarging the canal as much as possible, and towards the palatine margin; this latter proceeding allowing the facing to be placed in position without grinding the post flush with the cap, and thus adding strength to the crown.

Before enlarging a canal, it is well to pass a fine broach up it, and thus find the exact length of the canal. It can then be determined what length of pin can be used.

Having prepared the abutments, the next step is to make the "caps." The circumference of the root or tooth is obtained by means of the dentimeter and binding wire or a copper strip and Herbst pliers, and a band of 22 carat gold cut to correspond, the band being slightly smaller at the top than at the gum margin. The band is then soldered or sweated, and fitted to the tooth, and when properly fitted and trimmed down to allow room for the cusps, it is removed and a floor placed on it, The cap is then polished and put aside until the second abutment piece is made.

Assuming that the other abutment is one of the anterior teeth, a cap is made in the same manner as for a Richmond crown. Instead of the usual post, a tube is inserted in the canal, the lumen of the tube being of sufficient diameter to carry a fair sized post. The tube, when in proper position, is soldered to the floor of the

cap, and at this stage everything is ready to take the impression. The caps are placed in position in the mouth, and the impression taken in Plaster of Paris. Before running the models, a little soft wax is flowed round the pin, and the inner surface of the caps. This proceeding allows the easy removal of the caps from the models by slightly warming over the bunsen flame.

Having obtained the models, with caps in position, the molar or bicuspid cap is removed, and a funnel of brown paper placed round it, so that the cap is at the bottom of the funnel with the cavity uppermost; fusible metal is then poured into the cap and funnel to the depth of an inch or more, and when cold the paper is removed. The circumference of the cap is obtained, and a band of 22 carat gold made slightly smaller than the cap. The band is bent into shape with the pliers placed over the top of the cap, and the cap (filled with metal), forced into it by means of a hammer. The band is then removed and trimmed, and contour made by soldering a piece of 22 carat gold on the mesial and distal surfaces. A suitable cusp is then selected and soldered in position and roughly trimmed. In making the cusps, a matrix of pure gold is used, and filled with 22 carat gold.

For the anterior abutment piece, a split pin is used. The pin is best made by using half-round iridio-platinum wire and doubling it, and trimming with a file (preferably on a lathe if procurable), till it fits the lumen of the tube. A half collar cap is then fitted over the first cap, the split pin passed through it, and into the tube, and soldered in place.

Everything is now ready for the assembling of the piece. A facing is ground for the anterior tooth and placed in position, as are also the suspended teeth or dummies. The whole piece is held in position with sticky wax, and removed from the model. The caps are removed, and the piece invested and soldered.

When finished, the caps are placed in position in the bridge, the caps and canals filled with cement, and the piece placed in position in the mouth,

By restoring lost teeth in the above manner, in my opinion, you are rendering your patient the greatest possible service, the only drawback being the consequent high fee that is necessary to compensate for time and labour.

It is a regret that some attempt was not made to place on record the discussion which ensued on this paper. By the omission we lose the benefit of the opinions of the many on such an important subject.

FELTON, GRIMWADE & CO'S NEW DEPARTURE.

It will be of great interest to all our readers to learn that Messrs. Felton, Grimwade & Co., Austral Buildings, Collins St., Melbourne, have just made considerable additions to their dental department. For a long while they have felt that the large room, which they secured a few years ago, was not sufficient to make a good display of all their stock, and, fortunately, they were recently able to secure an adjoining room, forty feet long, which has now been connected by a six-foot archway to the old depot. The addition fronts Collins St., and has a north and east light, and is especially suitable for displaying all dental requirements. The cases for the selection of artificial teeth have been moved to the new room, and placed in front of an eastern window, and dentists will find there a uniform and steady light, which will enable them to make their selection much more quickly and satisfactorily than hitherto. The remainder of the room will be furnished with a platform, on which will be displayed engines, cabinets, surgical chairs, and all dental furniture, whilst a long tier of shelving on the east side will be used for displaying all general stock. At the end of the room will be a table for the use of clients and visitors from the country. This table will contain a copy of the Dental Act, "Dental Register," and current numbers of dental papers, daily and weekly papers, and writing materials.

A notice board has been erected, on which will be posted any information relative to dental matters of interest to all the profession.

Although the new addition faces Collins Street, the entrance will be as hitherto, in the centre of the building. The addition will not be furnished for a week or two yet, but when completed this depot, we think, will be far and away ahead of any in Australasia, and we also venture to think that all the profession will greatly appreciate the opportunities given to them by Messrs. Felton, Grimwade and Co., of having such a large assortment of dental requirements always on exhibition.

AMBIDEXTERITY IN ART.

On March 16th, in the rooms of the Royal Statistical Society, Adelphi Terrace, London, W.C., Sir William Richmond, K.C.B., delivered a lecture on Ambidexterity in Art, being the second lecture in the series the delivery of which has been arranged by the Ambidextral Cultural Society. In his opening remarks the lecturer referred to an extraordinary feat performed by Sir Edwin Landseer who drew the profile of a stag's head with its antlers complete with one hand, while with the other he outlined the profile of a horse. This, Sir William Richmond thought, clearly showed that Sir Edwin Landseer must have been able to use both sides of his brain separately, and he admitted that he had tried to repeat the experiment and had failed. As evidence that ambidexterity was taught among the ancients, he said that the Spartans were compelled to use the sword, the shield, and the spear equally well with either hand, while a modern instance of an ambidextrous nation is the Japanese. Ambidexterity, Sir William Richmond then pointed out, was of the greatest importance to a musician, and especially to the organist who had also to use his feet in the execution of his art, so that probably nothing was more difficult to attain than the proper control of the limbs in organ playing. To the artist, and especially to the sculptor, ambidexterity was almost a necessity if he would excel in his art. Not only could one hand be rested while the other was working, but in some cases the use of the left hand was required to produce the best work. To educate the left hand required perseverance, and as an example of what could be done by perseverance, he mentioned two cases. The first was that of a congenitally armless painter who copied the "Descent from the Cross," the colossal picture by Rubens, with his feet alone. The second was the case of a young man, paralysed in all his limbs, who learned to draw and even to engrave on copper, using his lips, teeth, and tongue. A copy of a work of Albert Durer, a seated figure known as the "Man of Sorrows," engraved in this astonishing manner, was handed round for inspection, when those present who were acquainted with the original pronounced the copy to be a perfect replica. Sir William Richmond then referred to the ambidexterity of Leonardo da Vinci,

and showed to what a large extent in various handicrafts the Italians of the present day used their left hand, this being a survival of ancient custom, in which connection he thought that it would be an interesting experiment to see whether an Italian child learned to become ambidextrous sooner than an English child receiving similar training. He concluded by expressing his belief that the work of the Ambidextral Cultural Society was of the greatest importance, and thought that a deputation should wait upon the Board of Education to urge its views being adopted in schools. The lecture was illustrated by drawings showing the difficulty of using the left hand without previous training, much amusement being caused by the lecturer's sketch, which was made with both hands simultaneously, and which portrayed a figure whose arms were differently posed. Thus the right hand of the sketch held a stick, while the left, in a different position, held a cigar. This was a difficult feat, the difficulty, of course, lying in the fact that not only were the artist's two hands working simultaneously, but they were working independently.—*Lancet* March 25th, 1905.

LIMITED LIABILITY COMPANIES AND MEDICAL OR DENTAL PRACTICE.

An excellent method has apparently been discovered by the Irish Branch of the British Dental Association for dealing with the offence of dental practice by unqualified persons under the cloak of a limited company, with a title implying qualification to practise dentistry. The difficulty of convicting criminally in such cases lies in this, that a company cannot be registered as a dentist, so that it cannot logically and legally be said to commit the offence of pretending so to be registered. Further, the individual performing the operation is not the company, so that he often persuades the easily misled local magistrate that it is not he who has used titles implying registration, and the non-liability of the company is used by the advocate to befog the issues generally. The Irish Branch of the British Dental Association has accordingly tried a new plan, and, invoking the aid of the Attorney-General, has asked for, and obtained, an injunction against one of these bogus companies in the Chancery

Division at Dublin. The defendants elected practised under the audacious title, "Mr. Appleton, Surgeon Dentist, Limited." The ground of the application was that the whole matter constituted a dangerous fraud upon the public and upon the dental branch of the medical profession. The whole of the facts connected with the registration of such companies in general, and with that of the company before the Court, were gone into at length, and in the latter connection it was shown that neither a man named Appleton or his wife, the two "directors" of the company, nor any of the signatories, were on the Dental Register. The Master of the Rolls, in giving judgment, declared that the statements of Mr. Samuels, K.C., in applying for the injunction, had been in no way too strongly worded; he had spoken of an audacious fraud, and the facts constituted an audacious fraud. It was a matter affecting the whole public, and it was no answer to an application for an injunction to say that the offence was an indictable misdemeanour. The Attorney-General was entitled to apply to stop the misdemeanour, and he was entitled to succeed. It is hardly necessary to point out that the course thus adopted may mark an epoch in the efforts of the medical and the dental professions to deal with quackery, and that the invoking of the aid of the Court of Chancery, if somewhat cumbersome and costly, may prove a more efficient method than the police-court summons in other cases besides those where the bogus limited company is used as a stalking horse for the unwary public.—*Lancet*, March 18, 1905.

ADRENALIN AND COCAINE.—Adrenalin and cocaine work perfectly if the adrenalin is fresh, but if it has become acid in reaction they do not. Test with litmus paper and reject acid adrenalin.

TO REMOVE SEDIMENT FROM HYPODERMIC POINTS.—Remove the point and pass needle through a small piece of unvulcanised rubber. Fill barrel of syringe with water and insert needle—point first—in the end of syringe. Hold the parts together and exert firm pressure on the piston. This usually is effectual.

* ROYAL DENTAL HOSPITAL, LEICESTER SQUARE.

The annual general meeting of Governors was held at the Hospital on Tuesday, March 14th, John Tweedy, Esq., President of the Royal College of Surgeons, in the chair. The Committee of Management reported a total of 99,458 cases receiving attention during the year. Anæsthetics were given in 41,928 of the cases, —6,309 more than in the previous year. This beneficent work naturally means an addition to working expenses. The saving of pain to those suffering from dental troubles must be evident to all, and should commend the Hospital to the support of the charitable. This increase of work, although gratifying to the Committee and Staff, brings with it additional responsibilities, and they earnestly appeal for greater support from the public to enable them to carry on the work of the Hospital satisfactorily, and at the same time pay the yearly sum of £3,000 for interest and Sinking Fund re the new Hospital, all of which has been used towards the reduction of the debt on the Hospital. The Committee gratefully acknowledge a munificent legacy of £2,000, bequeathed to the Hospital by the late Noel Whiting, Esq., £500 by the late George Willis Penson, Esq., formerly, for many years, one of the Trustees of the Hospital, and £100 from the executors of the will of the late Julius Lewisohn, Esq., per Stuart Samuel, Esq., M.P. The Committee were pleased to report that, in further response to the appeal letter which appeared in the last two reports, and the special appeal made by Mr. Richard Winch at the last annual meeting, the sum of £207/0/10, had been received to the Chair Fund, leaving a balance of £115/8/8 still owing. The Committee earnestly appeal for funds to enable them to discharge this liability, as well as to repay £1,000 due to the bankers, and the balance of about £700 still owing to the builders. Donors of chairs become Life Governors of the Hospital, if not already so, and are entitled to the usual privileges.

The actual cost of a chair is fifteen guineas, or with the necessary attachments, £17/4/2.

The entry of students at the Hospital continues to be satisfactory, and it is gratifying to the Committee to be able to report a substantial increase in the number of pupils joining for their three years' mechanical training.

The chief event in the past year, as far as the Dental School is concerned, has been the resignation of Mr. Morton Smale of the office of Dean, a post which he has held for twenty years. His unremitting zeal in the interests of the Hospital, the ungrudging manner in which he gave up time, health and strength, can never be adequately recognised. Mr. J. F. Colyer, who has been a member of the staff since 1891, has been elected to fill the vacant post.

* The Reports of these two British Institutions are inserted for purposes of comparison.—Ed.

The Medical Committee have also to record another loss in the resignation of Mr. E. Lloyd-Williams of his position on the staff of the Hospital and the chairmanship of the Medical Committee. Fortunately the School still retains his valuable services as lecturer on Dental Mechanics. Mr. Rilot, who has been a member of the staff since 1891, has been elected chairman of the Committee.

The Committee close their report by referring to the loss the dental profession has sustained in the death of Mr. S. J. Hutchinson. Mr. Hutchinson served the Hospital and School for many years, both as dental surgeon and lecturer, and the remembrance of his kindly help and willing counsel will long be treasured by many old students.—*British Dental Journal.*

THE INCORPORATED EDINBURGH DENTAL HOSPITAL AND SCHOOL.

The thirteenth annual general meeting of the incorporation was held at 31, Chambers Street, on Thursday, February 28rd, 1905, at 4.30 p.m. The Dean, Sir Henry Littlejohn, presided.

The following are the details of the work done in the Hospital for 1904, the figures for 1903 being given for the sake of comparison:—

	1903.	1904.
CONSERVATION—		
Fillings	6,005	6,856
Inlays	603	1,141
Dressings and scalings	2,624	3,725
Total	9,232	11,722
PROSTHESIS—		
Dentures and repairs	308	354
Crowns	109	133
Total	417	487
EXTRACTIONS (number of patients)—		
Ordinary	3,131	3,139
Under nitrous oxide	151	33
Under nitrous oxide and ether	2,338	2,195
Under chloroform	16	—
Under ether	13	—
Under other anæsthetics	24	117
Total	5,673	5,484
Total number of operations performed	15,322	17,693

The Directors are pleased to remark the large increase in the number of Conservation cases.

The subscriptions, including special subscriptions, voluntary contributions by patients, and a sum of £14 1s. derived from new life members, have increased from £123 18s. 1d. in 1903, to £142 7s. 6d. in 1904. The revenue from other sources has been well maintained.

The Directors desire to express their warmest thanks to the Town Council for a donation of £50 out of the Residue Grant. This sum has been applied in part payment of the amount expended during the year on the equipment of the Hospital and School.

The Directors regret that the question of extension of the Hospital has not yet come within the domain of practical politics. An action is at present pending in the Court of Session to try the right of one of the neighbouring proprietors to build forward to the line of Chambers Street. The Directors confidently expect that, even if the result of the action is against the right to build, they will be able to arrange terms with the Town Council and the Governors of George Heriot's Trust for their much-needed extensoin."—*British Dental Journal.*

A NEW PROPERTY OF ALUMINIUM.

"A German investigator," says the "Scientific American," "has discovered an exceedingly valuable and important property of aluminium, which consists in its application as a whetting agent, the effect produced on cutlery set with it being most astonishing. Though a metal, aluminium possesses the structure of a fine stone, has a strong dissolving power, and develops, upon use for honing, an exceedingly fine metal-setting substance of greasy feel, while showing great adhesion to steel. The knives, &c., treated with it quickly, obtain such a fine, razor-like edge that even the best whetstone cannot produce a like result. Thus, knives which have been carefully set on a whet-stone, when magnified a thousand times, still exhibited irregularities and roughness on the edge, while the edge of knives sharpened on aluminium, upon exactly the same magnification, appeared as a straight, smooth line."

NOTICES.

Contributors of "Papers" to the "Australian Journal of Dentistry" can have copies reprinted in pamphlet form at a small cost by notifying the Manager before publication.

Please mention the "Australian Journal of Dentistry" when acting upon information derived from its advertisement columns.

The Subscription—Single Copy 6d., or 5s per annum, to any part of Australia or New Zealand, and to other countries outside Australia 6s. per annum, postage free, due in advance. Country and Inter-State cheques must have exchange added. A crossed Postal Note—a record of the number being kept—payable to the **Publishers** of *The Australian Journal of Dentistry,* is the safest and least troublesome method of payment.

ANONYMOUS communications cannot receive attention.

All Communications intended for publication in the "Journal" should be addressed to the Editor at 177 Collins Street, Melbourne, not later than the 21st of each month.

All contributions must be written on one side of the paper only, and must be authenticated by the writer's name and address, not necessarily for publication, but as a guarantee of good faith.

BUSINESS communications to be addressed to the Manager, at the Office, Australian College of Dentistry, and Melbourne Dental Hospital, 191 Lonsdale Street, Melbourne.

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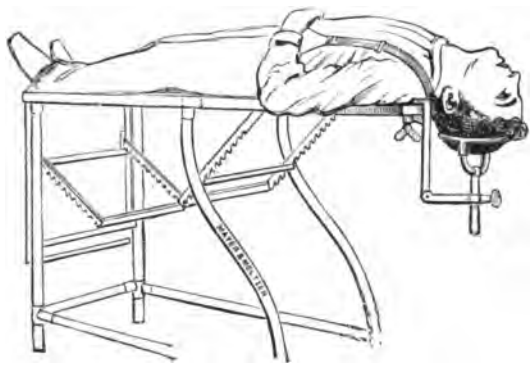

See Issue of this Journal, December 31, 1904, for article on above.

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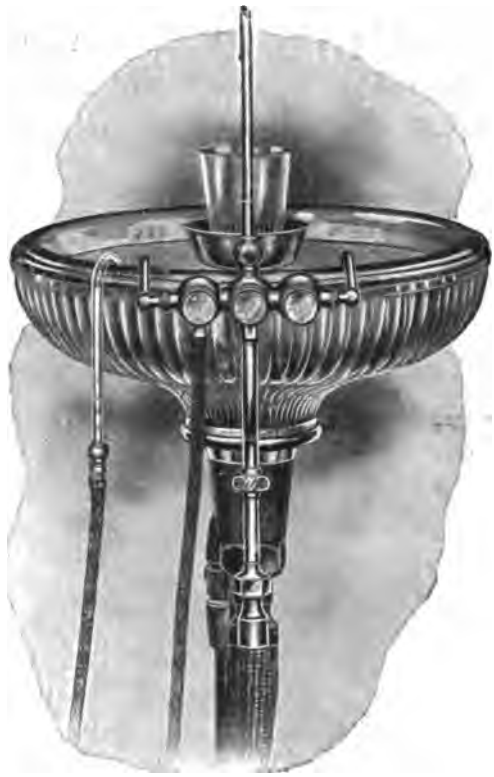

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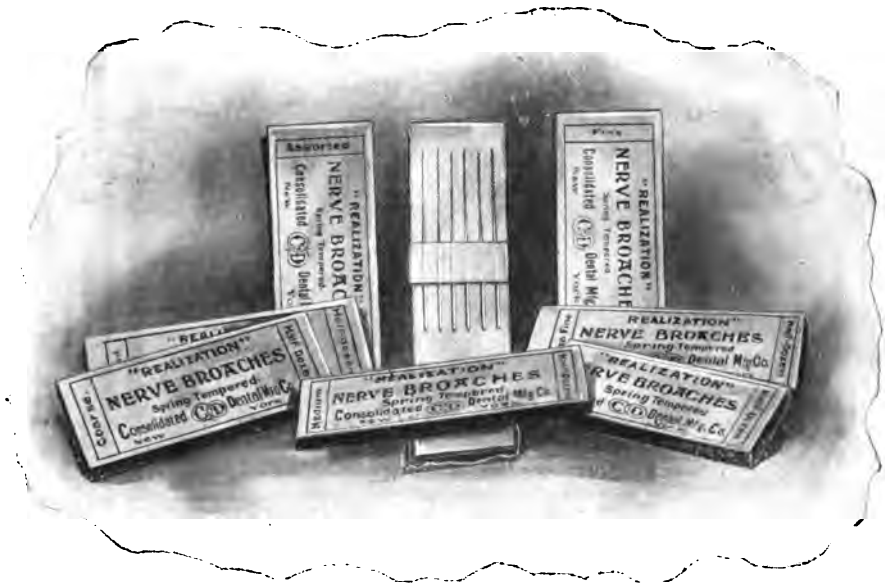

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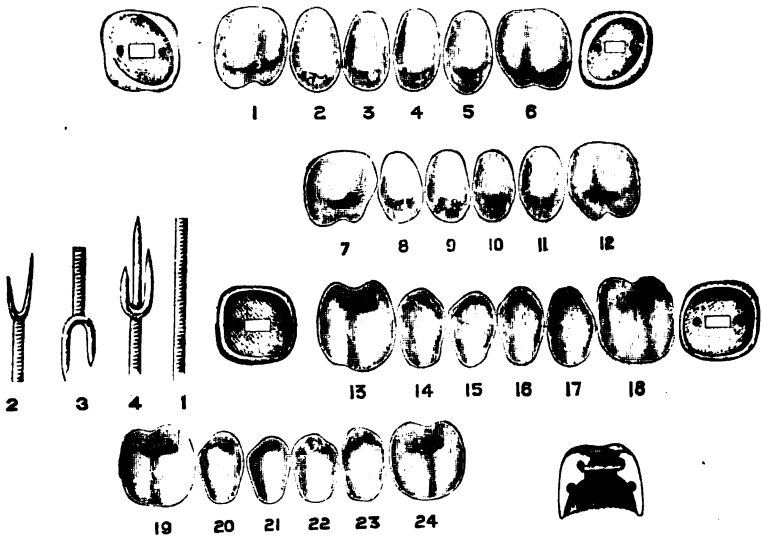

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In crowning a lower molar, after the canals have been reamed out and the roots ground down level with the gum, the pulp chamber should be enlarged and bevelled outward to the gum-margin. The deep portion of the cavity thus made is under-cut with suitable burs. The post No. 3 is now cemented with oxyphosphate into the canals. No more cement should be used than is necessary to just fill the canals. A quick-setting amalgam is then mixed, and the cavity of the enlarged pulp-chamber filled right up to the gum margin. Now make another mix of amalgam and fill the depression and the little pits on the under side of the crown, and press it to place. Just the right amount of amalgam must be used to make a perfect joint with the filling in the pulp-chamber without raising the tooth, which has previously been accurately fitted. If the position is just right, force the tooth well home, and do not move it again, but quickly fill the undercut cavity on crown of tooth around the square post with amalgan. The square post and the little pits filled with amalgam will prevent loosening of the tooth from rotation, which sometimes occurs with the ordinary crown.

The crowns are made for both the upper and the lower bicuspids, and for first upper and lower molars only.

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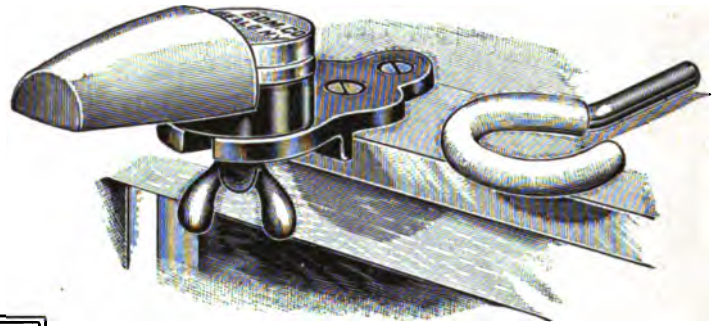

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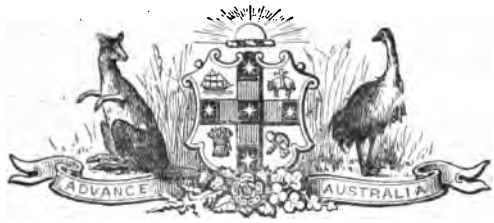

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Dentistry

EDITED BY JOHN ILIFFE.

A MONTHLY REVIEW OF DENTAL SCIENCE.

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which will be charged at quantity rates.

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They have now been before the Profession for more than thirty years, and the increasing demand for them in all parts of the world is good evidence of their high quality.

a *b* *c* *d* *e*

The above illustrations of a Diatoric Incisor, viewed (*a*) from the side, (*b*) from the back, (*c*) from the base, and of a Molar, viewed (*d*) from the side, (*e*) from the base, show the features which go to make our pattern the most appreciated of all diatorics.

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] JUNE 30, 1905. [No. 6.

EDITORIAL.

Since the publication in the pages of this "Journal," in January last, of the response manifested and the acknowledgments given by the medical and dental authorities in the United Kingdom of Great Britain of the strenuous endeavours towards a greater development in the higher standard of dental education in the State of Victoria, the correspondence which has been received in the ordinary course of the mail interchange by those in authority, and by those who also knew the facts of the situation, is at once interesting and important to all concerned. And it is instructive, even to those (if they care to read it) who do not appear to have taken any active or deep-seated part in the work.

The kindly notice of this "Journal" by the "British Dental Journal," in its issue of May 1st, in acknowledging the efforts made in this direction is one instance, and it is certainly encouraging to feel that the movement has received comment and appreciation of the journals of older lands.

The letter (addressed to the Registrar of the Dental Board of Victoria) of the Dean of the Faculty of the Dental Department of the University of Pennsylvania, Dr. Edward C. Kirk, Sc.D. (who is also the well-known Editor of the "Dental Cosmos") is of much significance. It seems to us a candid expression of opinion, given in a frank and sympathetic manner. He, by the way, up-

holds the standard already in force in Victoria, viz., the value to the student of a four years' course of training being maintained. Whilst he acknowledges he is not in harmony with many of his colleagues on the American Association of Dental Faculties, he fears that unless some concerted action is taken by the Dental Colleges, or by the enactment of such State legislation as will bring the whole profession into harmony in all the States of that great country, it will be almost impossible to maintain a four years' course of training for the dental degree. We take it these are sound opinions of a gentleman who for years has had considerable experience in training students for the practice of dentistry in America, and the whole letter furnishes further valuable testimony to the sound and comprehensive basis upon which we have established dental education in Victoria.

THE DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Board was held on Friday evening, the 23rd of June, 1905, at 8 o'clock, at the Board's Offices, 454 Collins Street, Melbourne, the President (Dr. Springthorpe) occupying the chair.

CORRESPONDENCE.

A very large amount of correspondence (including letters from England, France, and America), was received, amongst which the following letter from Dr. Edward C. Kirk, Dean of the Department of Dentistry of the University of Pennsylvania, will be read with special interest.

UNIVERSITY OF PENNSYLVANIA.

Department of Dentistry,
Philadelphia, April 20th, 1905.

Dear Sir,

I have your letter dated February 15th, also copy of the January issue of the "Australian Journal of Dentistry," which you kindly forwarded to me, and in which I have read with

pleasure of the action resulting in the recognition of the licenses of the Victorian Dental Board by the General Medical Council of Great Britain. I can well understand the gratification which you would feel at such a satisfactory result, and I am sure you can understand as well the extent to which I can personally share in that satisfaction from the point of view of one who has been for a long time interested in all efforts to unify our systems of Dental Education upon a higher professional plane.

It is indeed gratifying to know that a conscientious and continued effort to bring about such a result can be successful, even though the effort is in many cases hampered by the factors of personal or local prejudice, and sometimes even by national pride and failure to regard this movement from a broad educational and humanitarian point of view.

I am glad to know you are maintaining a four years' course of instruction. Our efforts through the Faculties' Association in this country, as you doubtless know, failed to support a four years' standard curriculum, and until some concerted action can be had either upon the part of a fair number of colleges, or through the creation of professional sentiment crystallised as State legislation, I fear it will be difficult, if not impossible, for us to maintain a four years' course of training for the Dental degree. Lacking that, we are doing all that can be done to improve the quality and amount of training given during the three years' curriculum. I believe we are making acceptable and well qualified men as practitioners under the present system, but it is very easy for us to see how an additional year could be well utilised for improving our educational product. I know very well that I am not in harmony with many of my colleagues, but I am personally convinced of the soundness of my position as here outlined after a considerable experience in training students for the practice of dentistry.

I have noted in one of the issues of the Australian journal, I think the February issue, that the application of a graduate of a University for registration by the Victorian Board was refused on the ground of lack of parody in our curriculum, with that demanded by the Victorian Board. Under existing circumstances, I can see no ground for criticism upon that decision. I should like, however, to know what your Board would demand of a graduate of

this institution, and one who in addition to his University of Pennsylvania Diploma, has also passed the Licensing examination of the State of Pennsylvania in the way of additional qualification, in order to meet the requirements of your statute. I should like to have this information, in order that I may inform such of our graduates or intending graduates as may wish to apply to your Board for the Victorian license.

I have read with care the amended regulations of your Board, which you forwarded me under date September 12th, 1904, also the specifications of your curriculum as embodied in the application made to the General Medical Council of Great Britain, and as far as I can understand them, the principles involved, together with the details of the curriculum and the requirement that the medical branches shall be taken in the Medical School are identical in the course at University of Pennsylvania with those prescribed by your Board, with the single exception that you have the additional fourth year, while we have but a three years' curriculum.

I shall be glad if you will give this matter your sympathetic consideration, and let me know your decision in regard to the matter, so that I may have it for my future guidance in deciding questions which may arise in connection therewith.

I wish again to express my thanks to you for keeping me in touch with the educational movement in your Commonwealth, and my congratulations at the results which you have already attained in an educational way. Very sincerely yours,

Mr. E. Joske, Melbourne, Australia. (Signed), EDWARD C. KIRK.

The Board, in acknowledging receipt of this letter, resolved to reply that a graduate from the University in question would, besides his University of Pennsylvania Diploma, and his certificate of having passed the Licensing Examination of the State of Pennsylvania, require to have the following additional qualifications and passes, viz.—

(1). A certificate of passing a preliminary examination equivalent to that now required in Victoria (i.e., Matriculation of the University of Melbourne, with Latin, English, Arithmetic, and Physics as compulsory subjects).

(2). A certificate of having attended lectures in whatever subjects were required to make the curriculum he had gone through equivalent to the Victorian curriculum.

(3). To pass the examination of the fourth year of the L.D.S. course.

(4). To pass the examination in any subject in which he had not already passed, or in which the standard of his own University was not equivalent to the Victorian standard.

"Sine Curriculo" Examination.

The Examiners were appointed for the "Sine Curriculo" Examination, to commence the 11th of July, and the necessary arrangements in connection therewith were completed.

Annual Report.

The following letter was received from the Chief Secretary's office:—

Chief Secretary's Office,
Melbourne, 3rd June, 1905.

The Registrar of the Dental Board,

Sir,

With reference to your letter of the 22nd ultimo, forwarding the report of the Dental Board of Victoria, for the year ending the 28th February, 1905, I am directed by the Chief Secretary to inform you that he is exceedingly pleased to learn from the report and balance sheet that the Dental Board are doing such excellent work, and that their financial position is so very satisfactory.

I have the honour to be, Sir, Your obedient servant,

W. A. Callaway,
for Under-Secretary.

E. Joske, Registrar.

ANOTHER SUCCESSFUL PROSECUTION BY THE DENTAL BOARD OF VICTORIA OF AN UNREGISTERED DENTIST.

At the Traralgon Police Court on Tuesday, before Mr. C. A. Cresswell, P.M., H. Pascoe, dentist, was charged with "for that he used a description implying that he is qualified to practise dentistry," or, in other words, with practising as a dentist without being registered in Victoria, although registered in New South Wales. Mr. Wise appeared for the Crown, and Mr. E. A. Atkins, of Chancery Lane, Melbourne, defended.

In opening the case, Mr. Wise said that the case was taken under sub-section 1 of the Dental Act, 1895. The defendant was employed by Dr. W. E. Thomas, dentist, Melbourne, and practised as a dentist in Traralgon on the 10th April. The proceedings, he said, were taken by the Dental Board, to protect the public, and also the qualified dentists of the State. The law provided a maximum penalty of £20, but the defendant could afford to pay fines every day. He asked that a substantial penalty be inflicted.

Constable Stewart stated that on the 10th of April he went to the Grand Junction Hotel, Traralgon, and saw the defendant in one of the rooms, and several people waiting to be attended to. Witness said, "Are you Mr. W. E. Thomas: and he replied "Yes." Witness said, "There has been some talk about the town as to whether you are a registered dentist, and I have come to enquire." Defendant replied, "That's all right. All this arises from professional jealousy. One cannot always carry his diploma with him, but if any one wished to find out, they can send to Sydney. If I like to practise in London or anywhere else," Witness had seen Dr. W. E. Thomas' advertisement in the "Journal" (produced).

To Mr. Atkins: Did not know anything personal about the defendant. From what he had heard defendant seemed to do his work well while in Traralgon.

Senior Constable Noble, stationed at Sale, informed the Bench that on the 12th of May he saw the defendant at Seymour, where he was practising as a dentist. Witness said, "I have got

another summons for you." "What for?" asked the defendant. "For practising as a dentist at Traralgon." The summons was made out in the name of H. Pascoe Thomas, but defendant said his name was not Thomas, but Pascoe, and that Mr. Thomas, his employer, had made him use the name Thomas. Witness said, "But at Sale you told me that your name was Thomas." Defendant replied in the affirmative. Witness said to him, "You ought to get registered"; but he replied, "I don't intend to, as I would lose twelve months, and I am not working for myself." His weekly earnings were about £25. Witness added that defendant had previously told him that he was a brother of Dr. W. E. Thomas.

Mr. Atkins submitted that there was no evidence that defendant had defrauded the public, only that he was not a registered dentist. At the time the proceedings were first instituted at Sale Dr. Thomas was not aware that his assistant was liable to a penalty. The Dental Board's coffers should not be filled by such fines, and if the prosecutions were continued the defendant would be ruined.

Mr. Wise: He chooses to defy the law and can make more in a day than we can fine him.

Mr. Atkins: He will not commit any further breaches of the law.

Mr. Wise: Senior-Constable Noble found him practising at Seymour.

A fine of £5 was inflicted, with £2 11 11 costs.——*Gippsland Farmers' Journal, May 26th, 1905.*

THE ODONTOLOGICAL SOCIETY OF VICTORIA.

The ordinary monthly meeting of this Society was held at the Rooms, Austral Buildings, 117 Collins Street, on Tuesday, May 23rd, 1905, at 8 p.m.

The President (Mr. T. F. W. Hall, M.A.C.D.) occupied the chair, but the attendance was not exhilarating.

Minutes of the previous meeting were read and confirmed.

At the conclusion of the usual routine business, there being no

nominations of new members, and no correspondence, the meeting listened attentively to an interesting paper on "Professional Conduct," by Mr. A. J. Cock.

The paper did not admit of much discussion, but all present concurred in the opinion that it was one of much interest and considerable merit.

After tendering its thanks to the writer, the meeting adjourned.

"Professional Conduct."

BY MR. A. J. COCK.

The mere fact of writing a paper on any practical dental subject would induce me to assume an apologetic tone at the outset, on account of youth, inexperience and other supposed defects, that accompany a young man starting practice.

There are, however, phases of life-work in which the opinions of a young man might be as acceptable as the views of one older and of more mature judgment.

Assuming this subject to come under that category, no apology is offered.

The idea of the subject of the paper was suggested by reading, and, I hope, "inwardly digesting," a small book, viz., "Success in Dental Practice," by Dr. Johnson.

To a young man who has graduated, the College course, with its attendant labours, having been overcome, the greatest difficulty would appear to have been surmounted, and as this is probably the idea of many, the slight error might be excused.

The College course, invaluable as it is, is only a preliminary training—the real stern task of daily practice, when a young man is thrown on his own resources, is a work which will require and demand all the energy and common-sense of which he is possessed.

At this point, and in the years following, the true character of the man will necessarily be brought out, and the first few years will, probably, to a more or less extent, determine the development or non-development of that character.

"Genius," it has been said, "is an infinite capacity for taking pains." There is a great deal of truth in this, and the efforts, and subsequent results of those efforts, to put the best of oneself into the work done for patients will make all the difference as to whether a man is known as a conscientious worker or not. Then,

as reputation "is what people think we are," the painstaking man is laying down a solid foundation, and building up a practice that will directly benefit him and indirectly benefit the profession generally.

As we are all perfectly aware, one of the qualities that attract patients to a practitioner is the appearance and practice of absolute cleanliness in a dental surgery.

For many years there seemed to be an idea rife in the minds of dentists that no harm would result from injury to the mouth and adjacent soft tissues.

The saliva seems to have been regarded as almost in the light of a powerful antiseptic, and the idea of blood poisoning and the transmission of infectious diseases was lost sight of apparently. This idea is now exploded, and the knowledge of antiseptics and the practice of antiseptic methods is now an important part in the training of a student.

Antiseptic surgery has rendered as comparatively safe a number of operations that were regarded as fatal, and the same rule applies with equal force in dental surgery as well as in general surgery.

That "there are tricks in all trades" is a very stereotyped phrase, and, although dentistry is not a trade (or should not be), the fact remains that many small deceptions are practised.

In the dental, as in the medical profession, the fact that the practitioner comes into close personal contact with the patients should prevent the practice of any little artifice by which the patient would be the sufferer.

There are times when to know the truth and nothing but the truth would have a demoralising effect on the patient, but these exceptions do not establish a precedent.

In his daily intercourse and transactions the dentist should do as he himself would be done by, and in the end, the result will be satisfactory, as has been demonstrated by men in our city.

That a certain amount of sympathy should be shown to patients is an indisputable fact.

In some cases, a callousness seems to be developed as the practice grows. This is to be deplored. Of course, a maudlin feeling of sorrow exhibited by the dentist on any manifestation of pain on the part of the patient is ridiculous; but to regard the one operated

on as some unfeeling piece of mechanism, with no sense of pain and suffering, is certainly rather inhuman.

The amount of sympathy shown should not be regulated by the extent of the patient's bank account, and we are justified in the thought that sympathy shown to patients is well expended.

Just as a medical man should read new and up-to-date works on subjects directly connected with his practice, to just as great an extent is it necessary for a dentist to study carefully new methods, drugs, etc.

The fact that there are always scientific investigating minds at work on various problems connected with the profession, shows conclusively that every man in practice has a great deal to learn.

As there is no individual possessed of all the necessary qualifications to make a perfect character, so there is no one dentist, no matter how talented, who can be regarded as a perfect master in all branches of the dental profession.

While we all deplore the fact that charlatanism and quackery flourish in the dental profession, and we are all unanimous in crying down and speaking against this evil, there are certain methods practised in minor, or seemingly minor, details by men of some repute which are not altogether free from the taint.

An evil that we should all guard against is the fact of criticising openly before a patient the work of a fellow-dentist. Apart from the spirit of manliness inherent within us, we should be guarded in our words, and commendation rather than condemnation should be our motto when speaking of other men.

An exorbitant fee for work done will sometimes do more towards sending a patient to a cheap dentist or "quack" than all the advertisements and inducements offered, for in many cases, if a patient finds that the fee is out of all reason to the work done, the natural thought will be that deception has been practised, and the next visit will be to a cheaper man.

Apart from the routine of professional work, a dentist, if he wishes to fulfil his duties as a citizen, is in duty bound to take a certain amount of interest in outside affairs.

If the interest is only a means to an end whereby he can enlarge his practice, he is not fulfilling his whole duty to the State.

Of course, a man should strive by every legitimate means in his

power to enlarge his practice and ensure his professional standing, but there is the chance of the selfish ends predominating, and if this be the case, his skill as a workman and his bank account might become greater, yet his character will not develop at the same rate.

The man who is selfish will not benefit his profession, nor will he help to raise that profession in the eyes of the public, and thus try and rid it of those who would be a stumbling-block in any walk of life.

As this paper has already reached greater dimensions than I intended, I will conclude with the hope that, through our conduct, the dental profession will be regarded as one of the greatest, if not the greatest, factors that tend to a higher standard of gentlemanly living in our Commonwealth.

COLLEGE NOTES.

Dental Students' Society.

The usual monthly meeting of the Dental Students' Society was held on the night of Friday, June 16th. The President (W. Orr Gray, L.D.S., D.D.S.) occupied the chair. After the general business had been concluded, Mr. McDonough, the Vice-President of the Society, was voted to the chair, and Dr. Gray read a paper on "Somnoform," which was very much appreciated by those present. Dr. Gray gave the composition of the drug, and explained fully its method of administration, after-effects, and the results he had obtained from its use. He presented for inspection the apparatus used at the Melbourne Dental Hospital, which assisted largely in making the subject all the more interesting. The speaker was asked numerous questions at the close of his address, which were answered in an efficient manner.

Mr. McDonough moved a hearty vote of thanks to Dr. Gray for his generosity in reading the paper, which was carried unanimously, and for which Dr. Gray thanked the meeting, which then terminated. The attendance was a splendid one, and the committee of the Society are very pleased to note this fact, in that it shows that members are taking an interest in the doings of the Society. It is also gratifying to notice that the junior students

especially attend, as by their doing so they will benefit considerably, and in after years, when they in turn become senior students, carry on the work of the Society with greater success than that already achieved. Not only did the students attend, but the post-graduates also, and this has been the desire of the committee for some time. No one is too old to learn, and those graduates who attend our meetings, in learning facts themselves, teach us.

At the next meeting, to be held on Friday, July 21st, Mr. W. Fielder, our histology lecturer, has promised to deliver a lecture on "The Developing Structure." The lecture will be illustrated with lantern views, and we hope to have a record attendance.

During the month a football match was played on the East Melbourne ground against the Church of England Grammar School's team, which resulted in an easy victory for the latter by 82 points to 22. The dental team sadly missed their champion McDonough, and his absence from the ruck was severely felt. Those who played best for our side were McCooey (who played the best game on the ground), Naylor (as is usual with him), Humphries, Marron, Allen and Thompson (until hurt).

The annual dance was held in the Masonic Hall on Saturday, June 17th, and resulted in a splendid success socially, and, we hope, financially. As far as is known we will reap a handsome profit, but cannot state to what extent with any certainty. The hall was prettily decorated in the colours of the Society (blue, green and gold) by Messrs. Johnson, of Richmond, and looked extremely pretty. The catering, to which too much praise cannot be given, was in the hands of Mr. R. Ovens, of Moonee Ponds, while the music supplied by Di Gilio's band was everything that could be desired. Everyone present, including many medical men, dental students and their friends, enjoyed themselves immensely. The dresses of the ladies were all very pretty, and amongst them some beautiful and costly ones were noticed.

The success of the dance was mainly due to the untiring efforts of Mesdames R. A. Cooper and E. J. Dillon. The committee were exceedingly fortunate in having two such ladies to assist them, and that body is extremely grateful to them for the valuable assistance they afforded. Individually the committee all worked hard, together with Messrs. Thompson and Lyon, the hon. secs., to bring the dance to the favourable termination attained.

We hoped to publish in this issue the conditions under which the various prizes offered to the Society are to be competed for, but, owing to other events intervening, we have been unable to satisfactorily arrange matters in connection therewith, but they will certainly appear in next month's issue of this journal.

NEW SOUTH WALES.

THE DENTAL BOARD OF NEW SOUTH WALES.

The monthly meeting of the Board was held on May 29th at Board Room, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson) took the chair at 8 o'clock p.m., there being also present:—Dr. Palmer, Dr. Peach, Messrs. C. Hall, C. Marshall, and G. Norton Russell.

The minutes of the previous meeting were read and confirmed.

The bank pass book was examined, found correct and accounts passed for payment.

The following applications for registration were received and dealt with:—Mr. H. H. Bond, Sydney; Mr. Roland Webster, Berwick-on-Tweed, England; Mr. B. M. Cox, Nowra; Mr. F. C. Goodall, 38 Johnston St., Annandale; Mr. B. S. Smith, Phillip Street, Sydney; Mr. J. N. Starkey, 93 Flinders Street, Moore Park; Mr. A. E. Campling, Lymerston Street, St. Peters.

The following being registered: Mr. Starkey and Mr. A. E. Campling.

Dr. E. N. Vickers' diplomas were registered and alterations made in the Register.

Correspondence was read.

In the matter of the Western Australian Dental Board's letter on the subject of uniformity of qualification for registration throughout Australasia, the Registrar was directed to reply to same as follows: —"That this New South Wales Board is in full accord with the resolution submitted by the Western Australian Board, and would be pleased to consider a proposal from them as to united action with such an object in view."

The matter of Edgar Byrne was again before the Board, and the Registrar directed to lay information against him as directed by Act.

Referring to the communication from the Dental Association of New South Wales on the subject of "Amended Dental Legislation," the President stated there would not be time to go fully into the subject that evening, as it was then late, therefore he would adjourn the matter until another evening, when that communication could be fully considered, at the same time as the Amended Dental Act, drafted by the Dental Board, was under discussion. While laying on the table data of the discussions and work of the Dental Board on this subject, he desired to call attention to the fact, that each member had been in possession of a typed copy of the Amended Dentists' Act, as drafted by the Board, since February 29th last, and therefore he trusted that not only would every member be fully seized with the subject, but that there would be a full Board for the final discussion.

The President had intended to bring this matter up at the meeting that should have been held at the end of last month, the time being now opportune. Parliament would meet shortly, but unfortunately that Board meeting lapsed for want of a quorum.

Copies of the communication from the Dental Association would be typed and sent to each member, and coming as it did from such a strong Association, would undoubtedly receive proper consideration, and also carry due weight with the members in their deliberations. The Registrar was directed to communicate such to the Dental Association, and see that typed copies be sent and in the hands of the members as soon as possible.

Mr. C. C. Marshall gave notice of motion as follows:—"That in view of the wording of clause 'A,' section 11, and its application to all the succeeding clauses of section 11 and section 12, it is hereby resolved that all further applications for registration must be accompanied by at least three recommendations as to good character from independent persons. This motion will be discussed at monthly meeting to be held on June 26th."

Dr. Palmer moved the adjournment of the meeting, and a special meeting was ordered to be called for the purpose of discussing Amended Bill.

Meeting adjourned at 10.25 p.m.

HORACE TAYLOR, Registrar.

THE ODONTOLOGICAL SOCIETY OF NEW SOUTH WALES.

SYLLABUS FOR 1905.

Monday, 8th May.—"The Card Index." Dr. E. H. Deck.

Monday 12th June.—"Practical Points," Mr. E. K. Satchell; "A Method of Porcelain Inlay," Dr. L. A. Carter.

Monday, 10th July.—"Resume on Plaster Impressions," Mr. G. H. Walker; "Concerning Fees," Mr. E. Blackwell.

Monday, 14th August.—"Porcelain Inlay Work," Dr. Hinder.

Monday, 11th September.—"Cataphoresis," Dr. Pockley; "The Use of Matrices," Dr. Deck.

Monday, 9th October.—Subject to be announced. Dr. A. Burne.

THE UNITED DENTAL HOSPITALS OF SYDNEY.

During the past few years two hospitals for the treatment of the teeth have carried on this branch of work in Sydney, with good results. The number of cases treated in these totalled over 20,000. For some time negotiations have been pending between the governing bodies of these institutions with a view to amalgamation, the main objects being to reduce expenses, which are heavy, consolidate interests, and strengthen the staffs of both bodies. Other principles were involved, the most important, to the public at least, being the passing of a law in which all treatment will be gratuitous and for the necessitous poor.

The new Hospital is controlled under an Act of Parliament by a conjoint Board, appointed as follows, viz.:—Six members by the subscribers and six members by the University of Sydney.

As can easily be seen, the Hospital will require considerable help in the shape of public subscriptions in order to enable the committee to defray the expenses consequent upon the gratuitous operations, and the distribution of all dental appliances to the poor in our midst. That there is great need for this is now being recognised on all sides, and many major diseases would be prevented, or greatly alleviated, if the apparently less serious tooth troubles and deficiencies were treated and made good. The new committee appointed by the two sources consist of Professor Anderson Stuart,

Professor Welsh, Dr. P. Sydney Jones, Mr. H. C. L. Anderson, Dr. Hinder, Dr. N. Pockley, Dr. E. R. Magnus, Mr. E. K. Satchell, Mr. H. Paterson, Dr. R. Arthur, M.L.A., Mr. C. C. Marshall and Mr. Donald Smith.

At the first meeting of committee, held a few days ago for the election of officers, &c., it was unanimously resolved that, in view of his specially high qualifications in the matter of hospital organisation, Professor Anderson Stuart be invited to be first President of the Hospital, also that Dr. E. R. Magnus be elected Vice-President, the committee hoping that, in recognition of his valuable services to this cause, he will naturally succeed to the chair.

Mr. C. C. Marshall was appointed Honorary Treasurer and Mr. Donald Smith Honorary Secretary to the new Hospital.

Arrangements for the framing of rules, &c., having been made, the committee made the following appointments to the honorary dental staff, viz.:—Honorary Dental Surgeons.—Mr. E. C. Bryden, Dr. L. A. Carter, Mr. S. Chaim, Dr. A. Cox, Dr. E. R. Magnus, Mr. C. C. Marshall, Mr. H. Paterson, Dr. H. Peach, Mr. P. B. Reading, Mr. E. K. Satchell, Mr. Donald Smith, Dr. Allan, Dr. Ash, Dr. Beckett, Mr. E. Blackwell, Mr. Bond, Mr. Bradley, Dr. Cleeve, Mr. Crouch, Dr. E. F. Deck, Mr. Dolan, Dr. Fitzhardinge, Dr. Forsyth, Mr. Hardie, Dr. B. Jones, Dr. F. D. Magnus, Dr. Parsons, and Mr. A. E. Ramsay.

DONALD SMITH, Hon. Sec.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The 123rd monthly meeting of the Dental Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, 2nd of June, 1905.

There were present: Dr. Astles (President), Dr. A. J. Bennett, Dr. F. M. Wilkinson and Mr. A. J. Wright.

After the minutes of the previous meeting had been read and confirmed, the Board entered upon the consideration of the standard of "Foreign Diplomas." Communi-

cations from the Dental Boards of Victoria, Queensland and South Australia, and from the Dental Association of New South Wales, were received with reference to the Board's endeavour to secure uniformity in the laws governing the admission of foreign or foreignly trained dentists. The Dental Board of Queensland promised hearty support to the movement. The Dental Association of New South Wales wrote advising its cordial co-operation, and intimated that it has already approached the Prime Minister in the matter of uniform dental laws for the Commonwealth, and had been informed that the question was one falling entirely within the jurisdiction of the various State Governments.

The Dental Board of Victoria advised that that body strictly adopted the principle of accepting no foreign diploma, except such diploma represented a curriculum equal in every respect to the curriculum of the Melbourne University for the degree of Bachelor of Dental Surgery.

The Dental Board of Victoria indicated and recommended the adoption of the Victorian L.D.S. diploma as a standard by all the State Dental Boards, in the Commonwealth, and to accept no foreign diploma which failed to reach this standard. The Victorian Board expressed itself as being thoroughly in accord with the Western Australian Board in the principle underlying its resolution.

After a long discussion consideration of the subject was adjourned.

APPRENTICES' EXAMINATION.—A letter was received from the Dental Board of Victoria stating that it was unable to accept the preliminary examination for apprentices of the Western Australian Board as being equivalent to the syllabus of the Dental Board of Victoria. The standard in the State of Victoria, which is the only one recognised for the preliminary examination, is that of Matriculation at the Melbourne University.

CORRESPONDENCE was received from the Police, Henning and Brown, P. H. Andrews and F. McKenzie.

FINANCE.—The bank certificate and the Board cash book were laid on the table, and accounts were passed for payment.

FRANCIS M. SYME, Registrar.

QUEENSLAND.

THE DENTAL BOARD OF QUEENSLAND.

General meeting held at the Board's office, 39 Adelaide Street, Brisbane, on Tuesday, June 6th, 1905.

Present:—The President (Mr. D. R. Eden), Dr. Hopkins, Dr. Brockway, Mr. E. F. Hughes, Dr. White, D.D.S., and Mr. H. S. F. Moran.

The minutes of the previous meeting were read and confirmed.

The bank pass book was produced and examined and found correct.

Accounts were passed for payment.

The outward correspondence since last meeting was read and inward correspondence dealt with, special attention being given to counsel's opinion with regard to By-law 26 under the Act.

The Registrar reported that Miss Burns and Mr. E. S. Martin, both of Brisbane, had passed the Intermediate Examination, but that the only candidate for the Preliminary Examination had failed.

Mr. A. J. McFie, of Gympie, was registered as a dentist.

The Registrar was instructed to forward a copy of the new Bye-laws to every registered dentist.

The Board resolved to take action against an unregistered dentist.

The preparation of a Calendar for the Board was held over for further consideration.

T. B. HUNTER, Registrar.

THE DENTAL ACT OF 1902.

2 Edw. VII. No. 25.

BY-LAWS.

"Gazette," 15th April, 1905. No. 89, p. 1370. Vol. 84.

Home Secretary's Department,
Brisbane, 13th April, 1905.

HIS Excellency the Lieutenant-Governor, with the advice of the Executive Council, has, in pursuance of the provisions of "The

Dental Act of 1902," been pleased to approve of the following By-laws made by the Dental Board.

D. DENHAM.

WHEREAS by "The Dental Act of 1902," it is provided that the Dental Board constituted under the said Act may, with the approval of the Governor-in-Council, from time to time, make By-laws for all or any of the purposes in the said Act mentioned: It is hereby resolved by the Dental Board, by and with the approval of the Lieutenant-Governor-in-Council, that the following By-laws shall be in force from the date of the publication hereof in the "Government Gazette":—

AMENDMENT OF BY-LAW No. 26.

38. By-law No. 26, published in the "Government Gazette" dated 30th May, 1903, is amended by the insertion after the word "possession" of the words "Provided that the license or degree confers on the holder thereof the right to practise in the British Possession in which the license or degree was obtained."

AMENDMENT OF BY-LAWS Nos. 32 TO 35, AND SCHEDULE 4.

39. By-laws 32, 34, and 35 and the Fourth Schedule, published in the "Government Gazette" aforesaid, are amended by the insertion of the words "or pupil" after the words "apprentice," wherever the same occurs, and also by the insertion of the words "or contracts of pupilage" after the words "articles of apprenticeship" wherever the same occur.

CERTIFICATE.

The foregoing By-laws were passed at a meeting of the Dental Board held on the 28th day of February, 1905.

EDMUND F. HUGHES.

Chairman.

ODONTOLOGICAL SOCIETY OF QUEENSLAND.

Dental Caries and Oral Hygiene.

BY W. R. PARKER, L.D.S., ENG.

(A paper read before the Odontological and Medical Society of Queensland and the Queensland branch of the British Medical Association.)

In reading this paper to you, I do so, not posing as an authority, nor do I believe there is much new information contained in it. The subject has always interested me, and always have I been keen on reading the latest information bearing upon it. One thing that has prompted me in writing this has been the fact that so much has been written about it in the recent medical anl dental journals. Having thus proved a popular subject in England and elsewhere, I hope this effort of mine will help us to pay more attention to the same in Queensland.

One of the most important matters concerning mankind of this generation is that of "Dental Decay and Hygiene." It is a matter greatly overlooked by both medical and dental practitioners, and in the case of the former one is often much surprised to find with what little importance the presence of "dental caries" is regarded. Perhaps this lack of knowledge or attention is due to the fact of the newer profession being practised by specially trained persons, whereas the medical man was once the combined practitioner.

The examinations in recent years of the English Exam. Board are fast approaching that of a medical one, with that in dentistry added thereto. The dentist, perhaps, may judge his medical brother from rather a high standpoint as regards his profession. The two professions must never be separated. Each day reveals that the one is fitted in with the other, and that both professions must work hand in hand for the success of each and the common good. The time is not far distant, I believe, when the medical man will be examined more minutely in dental surgery.

During last year's annual meeting of the British Medical Association at Oxford, dental surgery was included in one of its many

sections. Mr. Rickman J. Goodlee read a most interesting and useful paper upon the "Surgical Aspect of Oral Hygiene and Oral Sepsis." I take this opportunity of referring to it any who may not have read the paper. In it one has an eminent surgeon's views with how much importance dental surgery must be regarded as helping towards success in general surgery. The opening paragraph refers to the saliva, and reads thus:—

"Not infrequently, whilst speaking, I have noticed a minute drop, or rather a small bubble, of saliva escape from my own mouth and fall haphazard on whatever may have been in front of me. The observation has not been confined to myself, but has often been made in the case of other people, both medical and lay, and there is, in my opinion, no stronger reason—though a dozen strong ones might be offered—for preserving a decorous silence during the performance of operations, and of insisting upon the over-eager assistant keeping his head well away from the wound."

In pharangeal operations—those common operations of childhood in these days—how often do we find the same being done whilst the teeth are not clean and badly decayed, and thus not able easily to be cleansed and freed from decomposing food, pus, etc.

How does such a condition of affairs compare with the long-continued care and trouble bestowed upon cleansing the skin by the nurse, say, before abdominal operations?

In the same way a dentist is equally neglectful if he fails to notice and draw attention to the presence of enlarged tonsils, adenoids, etc., in patients coming under his care. The presence of adenoids tends to mouth-breathing, and this often is followed by open-bite through the molars erupting higher than usual. The habit once noticed, it is then almost impossible for the child to make its incisor teeth touch. Are not these typical cases where the one profession is dependent on the other?

Dental caries is the most common of all diseases. It has been my lot to see very few mouths (more particularly of those under 20) in which all the teeth were sound and in place. Great trouble and care is often taken in selecting the various foodstuffs of our daily diet, but how frequently is clean and wholesome food almost poisoned in the mouth—where the first, and one of the very important chemical parts of the digestive process—and also the most important mechanical process—should take place.

Even in a healthy mouth, and one which is cleansed frequently each day, many organisms may be found, but how much more numerous and virulent are those found in a neglected mouth?

The evil results arising from carious teeth are frequently lifelong, and may be enumerated ad infinitum. How often one notices a scar on the face, the result of an alveolar abscess or an infected gland primarily caused by a carious tooth.

It is to be hoped the days are past when an alveolar abscess is allowed to discharge through the cheek—thus forming a scar, either from the sinus or excisions. Such disfigurement should be avoided by allowing the abscess to discharge into the mouth—incisions, if necessary, being made in that cavity.

Or, how often do we notice an individual's facial expression spoilt by the loss of teeth, e.g., one central incisor may be lost, and the lateral incisor of the same side comes forward, and the remaining central incisor approaches it, thus diminishing the space, but at the same time altering the central line of the mouth so that it does not correspond to that of the face. The difficulty in speech caused by the loss of teeth is well known.

The premature loss of the temporary teeth is in many cases the cause of irregularity in position of the permanent teeth, e.g.: The first of the permanent teeth to erupt is the six year molar. The temporary molars being missing, this tooth erupts in a more anterior position and much nearer the middle line of the mouth than it should do. There is, then, not sufficient space for the teeth which erupt anterior to the first molar tooth to do so in a correct position, hence, then, irregularity in position or shape, also malocclusion.

Very few mothers are cognisant of a molar being the first permanent teeth to erupt, and time and again it is learned when a child of seven or eight has them so badly decayed as to require their removal. Irregularity in position of teeth renders their cleansing more difficult.

It is important to remember how large is the masticating surface of the teeth in a child of six compared to that of ten or twenty years later. The smaller age has the greater surface for mastication in proportion to the years. The teeth are to help in nourishing their possessor, and their masticating surface is greatest when nourishment is needed most by the individual.

From the evidence given before the recent "Royal Commission on Physical Training," it may be noticed that of 600 Aberdeen children examined, 12.5 per cent. professed to use a tooth brush; 381, or 63 per cent., had decayed teeth of the first set; 388, or 65 per cent., had decayed teeth of the second set.

From results of investigations made by the British Dental Association, out of 10,000 Poor Law children, only 14 per cent. had teeth free from decay, while in high-class schools matters were worse. Out of 560 boys at Haileybury College, only thirteen had sound teeth.

Dr. Morgan, of Swansea, made some investigations re children's teeth in Oct., 1904. The article from which these figures are taken was the tenth of a series in the "Lancet." The ages of children examined were from eleven to thirteen. Of 151 boys, there were 5 only with sound mouths, and 572 carious teeth—average, 3.7; of 144 girls, there were 6 only with sound mouths, and 473 carious teeth—average, 3.2.

I regret not having local statistics, but most people seem to think Australian children have very bad teeth. For my own part, I think they compare favourably with those of British children.

Many who volunteered for service in the late South African war were rejected on account of bad teeth. 46 per 1000 recruits are rejected annually in England for their teeth. Only ten sound teeth

are required in each jaw. After about 3000 men on active service in South Africa were invalided home through their teeth, three dentists were sent to the front. Within the last few years eight dentists have been appointed to the British Army Medical Service. The number is small, but may be increased. Within the last few months three dentists have been similarly appointed to the British Navy. These facts show that the importance attributed to sound teeth has been recognised by the British authorities, and none too soon. It always appeared a strange thing to make stringent regulations regarding the teeth of the recruit, but, once having entered the service, no care was taken.

The law endows the American Army with thirty dentists, and it is, according to Dr. Frank, "an innovation which will serve as a model to all other nations." Canada has also followed suit in this direction.

In many German towns, and also in St. Petersburg and Paris, dental aid is provided to the poorer classes at the expense of the municipality of each place.

CAUSES OF DENTAL DECAY.

According to Smale & Collyer's text book on Dental Surgery, several theories have been advanced as the exciting cause of dental decay. Briefly reviewed, they are:—

1. The Electrical Theory.—Crown of teeth forms one pole and the root the other, the electrolyte being the saliva. In abnormal conditions of the saliva an electric current is produced, leading to a loss of lime salts in the crown of tooth.

2. The Inflammatory Theory.—Upholders of this theory believe an actual inflammation takes place in the tooth, both in the hard and soft tissues.

3. The Chemical Theory.—Decay thought to be caused solely by action of acids.

4. The Parasite Theory.—Decay due to action of bacteria alone which produce acid which helps the process of destruction from the albuminous contents of dental canaliculate.

5. The generally accepted theory is that of Prof. Miller. He says: "Dental decay is a chemica-parasitical process, consisting of two distinctly marked processes." (1) Decalcification, or softening of the tissue, and (2) dissolution of the softened residue. Enamel, being inorganic, in the second stage is wanting in this tissue. The decalcifying agent—lactic acid—is produced in this case from many of the carbohydrates, whch may lodge in the mouth and undergo fermentation, thus directly or indirectly the acid is produced.

The enamel being dissolved slowly but surely by the acid, cavities are made in it. The dentine thus soon becomes exposed, and is doubly attacked—the inorganic part by the acid, and the organic part by the bacteria, which are ever present in the mouth. The action of the bacteria is similar to that of the pepsin of the gastric juice upon albuminous materials. The process is helped by the tubular nature of the dentine. Soon the pulp is exposed and dies,

leaving what remains of the tooth practically as a "thorn in the flesh." Proof of this theory lies in the fact that it is the only way in which dental caries may be produced experimentally.

Now let us examine this latter theory in respect to our modern methods of living. In these days of keen competition and hurry, most people don't take food that requires chewing, or don't take time for properly chewing what they take. Food is thus taken which requires little or no work from the teeth.

One of the chief predisposing causes of the bad condition of the teeth arises from the extensive use of finely milled flour. It requires no mastication, and thus is readily bolted down, and also it favours the more easy lodging of the food between and around the teeth. As an experiment, let one eat some fine white bread or arrowroot biscuits. After examining the mouth, cleanse it from this foodstuff, and then eat some wholemeal bread and again examine the mouth. One will notice how very little of the latter foodstuff adheres to the teeth, and should any do so its presence is soon felt.

Regarding the mastication, great importance must be attached to the fact when we consider how large an item carbohydrates form in a diet. Whether wholemeal flour or finely milled is the more nutritious or economical, it is not my intention to argue. In a diet such as Ranke's, which is 100 grms. proteid, 100 grms. fat, and 250 grms. of carbohydrates, assuming such is the case, imagine how much more work there would be for the teeth and jaws if the 250 grms. of carbohydrates were wholemeal bread instead of fine white bread. At the same time imagine how much more thoroughly the food would be mixed with the saliva through proper mastication.

The blacksmith has strong and well developed arms through use, and why should not the teeth be strong and well developed if only we would use them? Frequently one meets with teeth in all stages of decay, but very little if any sign of wear is present. In fact, the masticating surface is met with in a state of decay almost as often as between the teeth.

Our forefathers who fought at Waterloo or Trafalgar had much better teeth than the men who fought in South Africa. When the former battles were fought, the steel roller flour miller was not in existence. How often do we notice the crust removed from the bread given children to eat? Cruel are the mothers who do this. When the child has teeth it should be given every opportunity of using the same to masticate its food. Teeth are not provided as a luxury; they must be used, otherwise they are abused. The process of mastication ensures a more plentiful blood supply to the muscles, glands, etc., of facial region, and does not the frequent occurrence of adenoids, enlarged tonsils, etc., seems to be accompanied with the present-day tendency to do away with mastication?

The question is often asked "Do sweets destroy the teeth?" To make these delights of childhood cheap, cane sugar, which undergoes no change in the mouth, is substituted for invert sugar (glucose and lenulose, which readily ferment in that cavity, pro-

ducing lactic acid). One can thus see the harm liable to follow from the early morning penny spent on the way to school.

Another disadvantage of white bread is that it does not find a ready sale if it is not snow-white. Does not this make a loophole for the use of chemicals such as alum and copper sulphate to improve the colour. The continual using of such bread, and its lodging around the teeth, assists their process of decay, besides doing harm to the system generallly. Judging from the gigantic manner in which purgatives and laxatives are advertised, constipation must be a very prevalent complaint. Is not the substitution of finely milled flour for wholemeal a likely cause, inasmuch as the former has much less cellulose in comparison.

An equally important predisposing cause of dental caries is that of the feeding, or, perhaps, to be more correct, the starving of children. It must be remembered that as many as and as much of the crowns of the teeth that are visible at one year are in the jaws at birth, though not visible.

In reference to this matter, I will limit my remarks to extracts from an article by Dr. Wm. Hall, of Leeds. Comparisons are made between the feeding of Gentile and Jewish children.

"The Jew, amidst poverty, dirt, and overcrowding, holds sacred the law that 'Thou shalt not rob the child of his mother's milk,' and he sees to it that his wife shall have help in providing for the maternal nursing, and the subsequent feeding of the child. He will suffer hunger rather than ignore it, neither outdoor work nor outdoor frivolity is thought of by the nursing Jewish mother. It is during the first twelve months of life that the child's bony framework is laid, and one is struck with the success of the Jewish mother in promoting this early bony development. If a two-year-old Jew is examined, the bones of the skull are firm and well knit together. The temporary teeth are well advanced, the long bones straight. From two years onward you will see this little Jew increasing in weight and stature by the aid of careful feeding on wholemeal bread, milk, eggs, oil butter, fish, pudding and potatoes. By the time the little fellow reaches seven years of age, he weighs four pounds more than his Gentile neighbour; at nine years of age he weighs seven pounds more; and now, from his better diet, another advantage accrues to him—he is forming good permanent teeth in a roomy jaw, his diet, too, seems to preserve those teeth and keep them clean."

The bones which guard the inner chamber of the nostrils are firm and well-developed. The nasal passages are free, and this happy gift makes the child a nose-breather, which is a great advantage to its physical development, and is helpful in the formation of a broad palate in which to insert the teeth. The V-shaped palate is very rare among the Jews and very common among the Gentiles.

In a recent cablegram it was reported that there were 1,000,000

underfed children in England. One cannot wonder at questions being asked regarding the national physique, and if this is deteriorating the teeth likewise must suffer.

Many consider the great predisposing cause to be due to a soft water supply. This may influence a little, but when one considers the huge quantity of water—even very hard water—that would be required to provide the requisite amount of mineral matter which the body requires daily, not so much importance can be attached to this cause.

In a recent paper by Dr. Henry, of Melbourne, and published in the A.B.M.A. "Journal," he mentions the fact that Scotch people coming from the Highlands always had a very soft water supply, but very good teeth. We always associate Scotch people with oatmeal, and this would always be of a coarse kind, and not so fine as that at present sold. This extra work of masticating our foodstuff accounts for their good teeth. The water supply of Glasgow is reckoned one of the purest in the world. Yet Glasgow people in these days have very bad teeth, and I am sure the old-fashioned oatmeal has been largely substituted for finely milled flour.

Another predisposing cause is that attributed to the use of flesh meat as a foodstuff. According to statistics of the existing primitive races by Mr. Mummery, all showed some evidence of caries. Other points brought out by statistics are:—

1. That in races existing wholly or in great part on vegetable food, caries is more prevalent than in races existing wholly upon meat.

2. That general hygienic conditions play as important a part as diet.

3. A regular and sufficient supply of food is important.

I have endeavoured to show that finely milled carbohydrate food as used, coupled with the diminished use of the jaws and teeth, is mainly responsible for the presence of dental caries. Extracts from an article by Dr. Rose, of Dresden (from the Central Office for Dental Hygiene of Dresden), upon the teeth of the inhabitants of Dalarne (a district of Sweden) and Gothland (a neighbouring island) bear out my conclusions. The article was published in the B.D.A. "Journal," Feb. 1, 1905:—

"The Dalarne people owe their good teeth, in the first place, to their hard bread, and next to their generally simple and natural mode of living. As I have already shown in a former article, the Dalarne peasants' bread may be regarded as ideal from the standpoint of dental hygiene. This hard bread forms, with milk and cheese, the chief element of nourishment of the Dalarne peasant. In the church village in the Siljansoe, where there has lately been an influx of summer visitors, the more refined mode of life is already beginning to spread from the hotels to the well-to-do classes. Fifty years hence, the teeth there will not be so well-preserved as they are to-day, but the more outlying districts of Dalarne are still but slightly affected by town

civilisation, and the traveller who is not content with the simple fare of the Dalarne peasants has to bring his own delicacies with him.

"In contrast to Dalarne, the Island of Gothland is notorious for the bad teeth of its inhabitants, and, indeed, my investigation proved that the Gothland children, if they have not the very worst teeth in Sweden, they come very near it. Whilst on the Swedish mainland, the primitive stone, which is poor in lime, predominates, Gothland forms a plateau of chalk belonging to the silurian formation, which is overlaid in many places with detracts from the Ice Age. The bad teeth in the Island of Gothland, which is rich in lime, have, therefore, been used by many as an argument against the universal application of the lime theory, but without any justification, as I shall show in a larger work which I propose to bring out at a later date, the nutritive salts contained in the fruits of the earth only varying to a small extent. What is really of the greatest importance in the formation of the teeth is the hardness of the drinking water. It is, however, a generally accepted rule that drinking water from carbonic limestone is not particularly hard. Above all, it is not permanently hard. To this rule there are, in Gothland, no exceptions. In Visly and Slite the hardness which remains varies from 3.9 to 4.5 degrees (German standard of hardness). It is also somewhat less than in Dalarne, where, in Leksand and Rattvik, the average is 4.5 to 4.8 degrees.

"Quite in accordance with the medium hardness of the water, the Gothlanders' teeth are not at all badly developed. They have fairly good, whitish-yellow or whitish teeth. The average hardness of the Gothland drinking water varies in different places which have been examined from 8.7 to 26.9 degrees. If these places are divided into three degrees of hardness, with a difference of five degrees of hardness each, it will be seen that also in the Island of Gothland the good quality of the teeth increases in proportion to the hardness of the drinking water.

"The teeth of the Gothlanders are, therefore, on an average, not particularly badly formed, only badly preserved. There must consequently be conditions there which rapidly destroy the teeth. The Gothlander's face is certainly longer, but the difference is not sufficient to explain the decidedly worse preserved teeth, and we must consequently return to their diet, and, as a matter of fact, the bread eaten by the Gothlanders' is of the worst possible kind as affecting the teeth. The Gothland peasants' bread is like Westphalian pumpernickel—a dark, brownish-black colour, but it is soft and pasty, and, consequent on being worked too long in the dough trough, it is so indescribably sour that only a Gothlander can eat it.

"In consequence of the soft food, the chewing muscles, the jawbones, and the saliva glands of the Gothland population are imperfectly developed, and it would be vain to look for such powerful masseter and temporal muscles as are to be found amongst the inhabitants of Dalarne.

"In no other country, not even in the north-east of Switzerland,

which comes next in order, are such narrow sets of teeth and V-shaped upper jaws to be found as in the Island of Gothland. In the analyses of saliva made by the chemical engineer, Bagnar Berg, by order of the Central Office of Dental Hygiene, some months ago in Sweden, it appeared that the saliva alkalinity was considerably less in Gothland than in Dalarne, while, for instance, in Slite the average of alkalinity equalled 3.9 com., N_{10} H. p.c., against 5.9 N_{10} H. p.c. in Rattvit. It is the exceptionally hard bread eaten by the peasants in North Sweden that preserves the teeth of the Dalarne people, and keeps them in such sound condition, whilst the Gothlanders ruin theirs by eating black bread which is soft and sour, and which, furthermore, contains sugar."

DENTAL HYGIENE.

Whether dental decay is the result of malnutrition or vice versa we are very unlikely to find the individual in whose mouth carious teeth are present enjoy good health. It is remarkable to notice the great change in health and spirits which takes place after the removal or treatment of carious teeth.

The teeth form one of the most wonderful and intricate structures in the body. Their histology has given rise to no end of research and discussion. The process of calcification is enough almost to engage one in a life-long study. Although the enamel is such a hard tissue, and covering all the crown, how slowly but surely does the comparatively weak lactic acid do its work. Teeth must be kept clean, as clean teeth do not decay. One makes a great mistake in thinking that they require no care. This policy may have suited the times when the flour used was not finely milled. Even Stanley, in his "Darkest Africa," mentions after their evening meal the care bestowed by the natives met with upon their teeth especially.

No one can be expected to use a tooth brush to clean the food thoroughly from the teeth whilst teeth are present with exposed pulps. One tooth with an exposed pulp, if not attended to by the dentist, may lead to neglect in cleansing all teeth on that side of gum, and perhaps cleansing may be omitted altogether. The child cannot learn the habit—it might be called a duty—too soon. Once acquired it becomes lifelong.

In these days of artificial, pre-digested and finely ground food-stuffs, the greater is the risk of the child soon losing its teeth. The food lodges between and around the teeth, and the places where it lodges are where the process of decay begins. Teeth should be cleansed after every meal, and especially last thing before retiring to rest, as the action of organisms, etc., is not disturbed so much as in the day time.

Personally I favour the use of a tooth-rake—not a brush. By this I mean a brush that has spaces almost as wide as the teeth between the rows of bristles placed from side to side. It is used to clear the food out from between the teeth, not to pack it in firmer, as many brushes are apt to do. It is used with a twisting

movement, not so much in an anterior-position direction. A brush with the bristles all close together has also a disadvantage in not being hygienic, on account of the food lodging between the bristles. A valuable adjunct to the brush is an antiseptic mouth-wash. This is found in a most convenient form in reliable brands of carbolic tooth powder. Cheap tooth powders are injurious, inasmuch as many contain free acids, which quickly cleanse and also destroy the teeth. Their use is to be avoided. Even after cleansing thoroughly with a brush it is possible to find food on floss silk which has been passed between teeth. The careful use in this manner of floss silk is to be recommended. In many schools it is the custom for the children to have their hands examined regarding their cleanliness. The pity is that the same attention is not paid to the teeth. Dentures should be cleaned free from food and also the mouth before replacing them. When it is inconvenient for one to use a tooth brush after a meal, it has been my custom to recommend rinsing the mouth with water several times, and this to be assisted by a toothpick. Much of the food may be cleared from the mouth in this manner. They should also be frequently left in antiseptic solution.

The dentist should be visited regularly, and at least twice a year, and not only upon the presence of toothache. "A stitch in time saves nine," so also may a filling in time. When cavities are small children have very little dread and fear of the dentist hurting them.

Those who have the care of children should be very particular not only about their teeth but also those of the nurse-girl. The average nurse-girl is perhaps very fond of kissing and hugging her little charges, but few seem to realise the great risk of infection that the little ones are exposed to should her mouth neglected and carious teeth prevalent. The most neglected mouth ever I heard about was that of a patient reported and illustrated in Ash's "Quarterly Circular":—

"A partial lower denture buried in tartar (salivary calculus) and lost sight of by the patient.—This extraordinary mouthful, which had forced up the tongue, and caused the patient a considerable amount of pain and discomfort in speaking and swallowing, was diagnosed by a general medical practitioner as a 'bony growth on the lower jaw.' He advised application for admission into a general hospital, with a view to the patient undergoing an operation for its removal, but before acting upon his advice the patient sought the aid of a dentist for the removal of an offending upper molar. Instead of extracting only one upper molar, he found it necessary to extract two. Examining the mouth, he discovered two artificial lower incisors almost hidden under the mass of tartar, which had quite obscured the metal band, and entirely capped the adjacent teeth. Upon being questioned, the patient remembered having had a lower piece fitted in the mouth over fifteen years previously, but he said it had never been taken out, and he had quite forgotten its existence. With considerable trouble

it was removed, and brought away with it, en masse, four other teeth which remained in the lower jaw. Profuse intermittent hæmorrhage and considerable sloughing of the gums continued for about four weeks after the removal of the denture, but, with the daily use of an antiseptic mouth wash, the mouth eventually assumed a healthy condition, and complete new upper and lower dentures were made, which are now being worn by the patient with comfort and satisfaction."

This is, no doubt, an extraordinary case of neglect, but there is not the attention paid to the hygiene of the mouth that should be. It behoves us to take every opportunity of instructing those ignorant of the care it deserves. Neglect of the teeth leads to great pain and personal inconvenience, to say nothing of the incalculable harm to the system generally.

Such is a brief outline of the subject, and I hope the same may give rise to some interest in the teeth and their care.

In conclusion, I wish to draw attention to the very great need there is in this city for a dental hospital. Some provision should be made for the truly suffering poor, and also for our present students of dentistry to learn something about dental surgery before commencing a profession which has almost become a science. I think each one here who has thought many times of the pain suffered by many through toothache must be alive to the situation.

A Dental Act, to limit the practice of dentistry by only competent persons, and no opportunity given for study, is not true Socialism—of which we hear so much about these days.

In suggesting this, I feel also it will be almost impossible to have a satisfactory course of dental study without its equally important parent—a medical course.

To accomplish either, it behoves every member of each profession represented here this evening to do the utmost to have established at an early date in our midst a University.

Situated as we are, in a climate or land in which peculiar and puzzling diseases occur, should not the same be studied best amidst their surroundings? Is not a University a much-needed necessity, and how many have had their beginning from a medical school?

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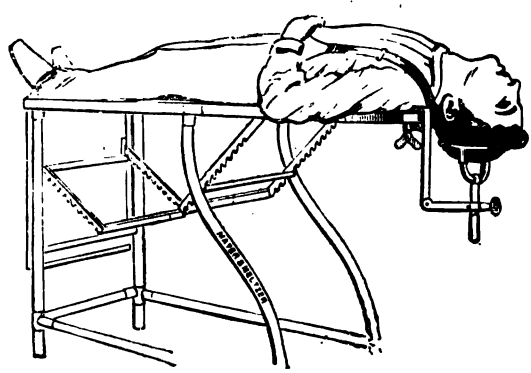

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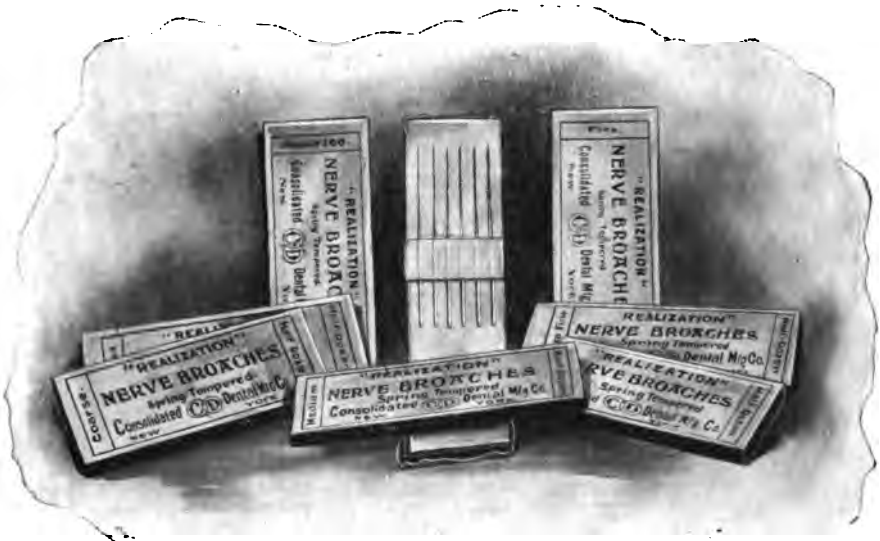

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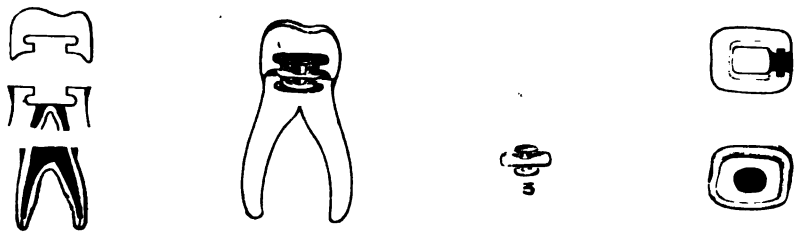

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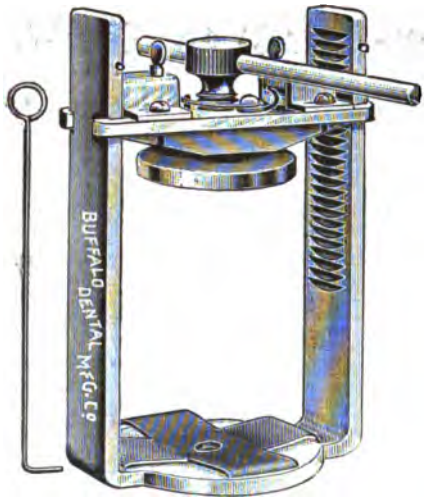

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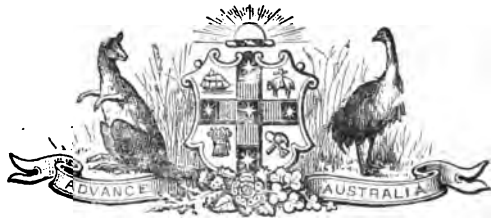

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DENTAL CHAIRS

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ELECTRIC FURNACES, ENGINES, &c.

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] JULY 31, 1905. [No. 7.

THE AUSTRALIAN COLLEGE OF DENTISTRY.

THE MELBOURNE DENTAL HOSPITAL.

The annual meeting of the Life Governors and Subscribers of the Australian College of Dentistry and of the Melbourne Dental Hospital was held on Thursday evening, 27th July, 1905, at the Council rooms, Austral Buildings, Collins Street, the chair being occupied by the Vice-President (Mr. F. A. Down).

The annual report and balance sheet were unanimously adopted, on the motion of Mr. Kernot, seconded by Mr. M'Gregor.

Sir John Madden was unanimously re-elected President, and Mr. F. A. Kernot was re-elected Hon. Treasurer. The two vacancies on the Council were filled by the re-election of Dr. W. L. Aitken, D.D.S., and the election of Mr. P. J. Wilkinson, M.A.C.D., who took the place of Dr. J. A. Bruce, D.D,S., who retired by effluxion of time.

Messrs. F. G. Wilson, F.S.A.A., and F. W. Miscamble, F.I.A.V., were unanimously re-elected Auditors.

Great satisfaction was expressed at the steady growth and development of the College, and special mention was made of the gratify-

ing condition of the finances of the College and Hospital, for which the Hon. Treasurer (Mr. F. A. Kernot) received the well-deserved thanks of the meeting.

The proceedings concluded with a hearty vote of thanks to the chairman (Mr. F. A. Down), who suitably acknowledged the vote of thanks.

SECRETARY'S ANNUAL REPORT.

Since the last annual meeting the Councils of the above institutions have held fourteen meetings, and have had a great deal of work to do. The attendance of members of Council throughout the year has been excellent, and they have displayed great zeal and enthusiasm in transacting the business of the College and Hospital.

Election of Executive Officers.

At the first ordinary meeting of the year, held on the 11th day of August, 1905, the following office-bearers were unanimously elected:—First Vice-President and Chairman of Council, Mr. F. A. Down; Second Vice-President, Mr. D. McGregor; Editor of the "Journal," Mr. J. Iliffe; Executive Committee: Messrs. F. A. Down, F. A. Kernot, Dr. W. L. Aitken, D.D.S., Mr. Down (Chairman); Finance Committee: Mr. F. A. Kernot (Hon. Treasurer), Dr. W. E. Davis, D.D.S., Dr. J. A. Bruce, D.D.S., Mr. T. F. W. Hall, Mr. J. Iliffe, Dr. Davis (Chairman); House Committee: Mr. Down, Mr. McGregor, Mr. R. A. Cooper, Dr. W. L. Aitken, D.D.S., Mr. Cooper (Chairman).

It was a matter of great regret to the Council that Dr. J. A. Bruce, DD.S., has, at the conclusion of the year, decided to retire from the position of a member of the Council. The Council highly valued Dr. Bruce's services, and have placed on record their appreciation of them.

Mr. P. J. Wilkinson, M.A.C.D., was nominated to fill the vacancy caused by Dr. Bruce's retirement.

Department of Operative Dentistry.

The third and fourth year students have continued to progress in the practice of operative dentistry, under the tuition of the able Superintendent, Dr. W. Orr Gray, L.D.S., D.D.S.

The poorer classes of the city have availed themselves freely during the year of the benefits of the Hospital, no fewer than 4105 new patients having been treated during the year, as against 3724 for the year ending 30th June, 1904, and as against 3169 for the year ending the 30th of June, 1903. The following table shows the nature of the various operations performed at the Hospital during the year, viz., from the 1st July, 1904, to 30th June, 1905:—

Permanent Extractions ..	9,535	Gas Cases (including Somnoform)	1,582
Temporary Extractions ..	2,007	Local Anæsthetic Injections	283
Gold Fillings	447	Porcelain Inlays	1
Amalgam Fillings ..	1,549	Nasal Inhaler Cases ..	18
Cement and Plastic Fillings	330		
Root Fillings	519	Total Operations ..	18,488
Minor Operations.. ..	1,091		
Dressings	939		
Crowns	45	Number of New Patients ..	4,105
Pivots	24		
Bridges	4	Number of Visits to the Hospital	8,276
Chloroform Cases.. ..	114		

We may compare this table with the record of operations for the year ending the 30th of June, 1904, viz.:—

Permanent Extractions, including local anæsthetics	7,736	Crowns	43
Temporary Extractions ..	1,942	Porcelain Crowns ..	1
Amalgam Fillings ..	950	Bridges	4
Gold Fillings	369	Chloroform Cases ..	70
Cement Fillings	317	Gas Cases	1,214
Root Fillings	280	Nasal Inhaler Cases ..	14
Dressings	909	Total Operations ..	14,950
Minor Operations ..	1,077		
Pivot Teeth	24	Total of New Patients ..	3,724

And we may compare both tables with the record of operations for the year ending the 30th June, 1903, which was as follows:—

Permanent Extractions ..	6,182	Pivots	7
Temporary Extractions ..	1,629	Bridges	3
Gold Fillings	426	Gas Cases	738
Amalgam Fillings ..	1,083	Chloroform Cases.. ..	60
Cement Fillings	419		
Root Fillings	268	Total Operations ..	13,428
Dressings	1,128		
Minor Operations.. ..	1,434	Total Number of New Patients	3,169
Crowns	49		

This year our total of operations at the Hospital are 18,488, as against 14,950 for last year, and 13,428 for the year ending the 30th of June, 1903, and the number of new patients for the three years stands as follows, viz.:—

For the year ending 30th June, 1905	4,105
For the year ending 30th June, 1904	3,724
For the year ending 30th June, 1903	3,169

The following table gives the names of the honorary anæsthetists who have administered chloroform, ether, or general anæsthetics during the year, and the number of their cases:—Dr. Grenville, 49; Dr. Nyulasy, 31; Dr. Shields, 23; Dr. Sutherland, 8; Dr. Grant, 2; Dr. Buchanan, 1. Total, 114 administrations.

The following is a detailed account of the amounts received for materials used in operative and prosthetic dentistry, and which are given in the balance sheet under the one sum of £1222 3s.:—

Regulations	£9	16	6
Ordinary Fillings	146	18	6
Gold Fillings	156	10	0
Crowns and Pivots	35	13	6
Special Work	6	6	6
Prosthetic Work	582	1	0
Anæsthetic	284	17	0
	£1222	3	0

The special donations to the Hospital during the year amounted to £144 4s. 7d., the details of which are given in the balance-sheets. This includes an amount of £32 0s. 6d., presented as the nucleus of the Building Fund by the Committee of the dental students' ball.

The honorary clinical staff at the conclusion of this year is as follows:—

Monday morning.—Mrs. Tovell, L.D.S., Mr. Nicholls, M.A.C.D., Mr. Nicholson, M.A.C.D., Mr. Hall, M.A.C.D., Mr. Price, M.A.C.D., Mr. Bowen.

Tuesday morning.—Mr. Cooper, Mr. Prytz, D.D.S., Dr. Yule, D.D.S., Mr. Philpots, M.A.C.D.

Wednesday morning.—Mr. Stevens, Mr. Johnson, L.D.S.

Thursday morning.—Mr. Kernot, Dr. Aitken, D.D.S., Mr. Clark.

Friday morning.—Mr. Iliffe, Mr. McGregor.

Saturday morning.—Mr. Wilkinson, M.A.C.D., Mr. Elvins.

The work of the honorary staff, as supplementing the services of the Superintendent, has been highly advantageous to the Hospital. The utmost attention is paid in the Hospital to cleanliness, sanitary precautions are strictly enforced, and sterilisers, which are in every surgery, are in constant daily use.

The following is the scale of charges now in operation at the Hospital: All extractions are free; where patients are unable to pay anything, all other operations are free, and dentures are made with-

out charge; general fillings, 1s. to 2s. 6d.; gold fillings, 5s. to 10s.; children's regulation cases, 5s. to 10s.; gas, 3s.; chloroform, 5s.; somnoform, 3s.; gas by nasal inhaler, 5s.

All Government institutions (asylums, Immigrants' Home, Old Colonists' Home, Neglected Children's Department) and subscribers' recommended cases, free; of paying patients, only those who are unable to pay a practitioner's fees are treated at the Hospital, and these, it will be seen from the above charges, pay for material and expenses only, not for time or skill.

It should be added that special care is taken to prevent any imposition on the part of persons able to pay a practitioner's fee.

The following report by the Superintendent at the conclusion of the year's work at the Hospital will be read with interest:—

The Melbourne Dental Hospital,
191 Lonsdale St.,
24th July, 1905.

I have the honour to report that during the past twelve months the students attending the operative department of the Melbourne Dental Hospital have shown great zeal in their operations, and have done excellent work, both as regards utility and practical experience.

The number of patients availing themselves of the opportunity of having their teeth attended to with care and ability, is ample to supply the needs of the institution, in the way of providing practical work for all of the students. The advent of a nurse to wait on patients, and attend to sterilisation of towels, serviettes, sponges, &c., by a man specially retained for that purpose, is also a forward innovation. The cleaning of the Hospital floors, walls, windows, &c., by a man specially retained for the purpose is also a forward move, as the work is too difficult, and almost impossible in some instances, for a woman to perform satisfactorily.

The Hospital is as sanitary as it can be well made, and no effort is lost to prevent accidents, such as blood-poisoning, by careful sterilisation of all instruments, &c., and strict instructions to all patients as to treatment of their mouths subsequent to leaving the Dental Hospital.

The room at present in use for porcelain work is unsuitable, and when the new Dental Hospital is built I would suggest a

special room with electric furnaces as part of the equipment be devoted to this work.

The conduct of the students as a whole is excellent, but a much-felt want is a students' room, which would mean the surgeries could be kept even quieter than at present, and work be less interfered with.

The work done in the operative technique class is proving a splendid training for the students, and greatly improves their work done on teeth in the mouth.

During the year a new anæsthetic, called somnoform has been used with great success, and has proved itself immeasurably superior to nitrous oxide, as far as length of anæsthetic period is concerned. In all there has been one hundred and fifty cases in which somnoform has been solely used, and there has not been one case which gave the slightest untoward symptoms, or caused the least uneasiness to the administrator. Apart from the feeling of uncertainty as to danger likely to be associated with any new anæsthetic, until it has been tried in all sorts and conditions of cases, and has been stamped with the approval of the profession at large, somnoform is, in my opinion, an ideal anæsthetic for dental operations, such opinion being based on personal knowledge gained in our Dental Hospital from the cases in which somnoform has been administered.

I can confidently affirm that the work done at the Melbourne Dental Hospital compares most favourably with that done in similar institutions in other parts of the world, and each year shows a higher standard of excellence attained.

I have the honour to be, etc.,

W. Orr Gray,

Superintendent Melbourne Dental Hospital.

Prosthetic Department.

The work done in the laboratory during the year, under the supervision of U. Dancer, has been satisfactory. To make more room for the students would enable the practical teaching to be more thoroughly carried on, a new laboratory has during the year been added to the Hospital, and has proved very convenient. To enable them to do this, the Council sacrificed a rental of from 15s. to 20s. a week, but they felt that the interests of the institution, that is, the education of the students, and the proper carrying out of the work,

were, and should be, their first consideration. The junior students occupy the old laboratory, and the senior students are in the new one.

The record of work done shows an increase on last year's record:—Year ending 30th June, 1902, there were 309 patients, fitted with 3595 teeth; year ending 30th June, 1903, there were 333 patients, fitted with 3744 teeth; year ending 30th June, 1904, there were 394 patients, fitted with 3808 teeth; year ending 30th June, 1905, there were 500 patients, fitted with 4902 teeth.

The following report of the Prosthetic Demonstrator will be read with interest:—

ANNUAL REPORT, 1905.

Prosthetic Department, Australian College of Dentistry,

191 Lonsdale St., Melbourne.

22/7/'05.

E. Joske, Esq., LL.B.

Dear Sir,—I have the honour to forward the annual report for the above department of the College.

During the past twelve months the articled students have increased in number from 12 to 23.

One student has completed his indentures, thus leaving 22 in the different years, viz.: 11 in the 1st year, 9 in the 2nd year, and 2 in the 3rd year. At present there is not a 4th year student articled to the College.

At the November examinations the students articled to the College were most successful, 9, out of 9 competing, passing their 1st year, 2, out of 3, passing their 2nd year, and 1 passing his 3rd year.

In their first two years the students receive instruction in vulcanite work, in all branches, including taking impressions, bites, trying in, etc., the more advanced being allowed take the cases through all necessary stages, under my supervision.

The senior students are instructed in the making of crowns, bridges, metal plates and regulating appliances, including screw cutting, etc.

The students are showing good progress with their work, and the following table will show the work done by each student, viz.:—

1st Year. Dent Entry	New Cases.	Reps.	2nd Year.	New Cases.	Reps.
Mr. [illegible]	[illegible]	[illegible]	Mr. [illegible]	[illegible]	[illegible]
" [illegible]	[illegible]	[illegible]	" [illegible]	[illegible]	[illegible]
Marsh Entry			" [illegible]	5	[illegible]
Mr. [illegible]	[illegible]	[illegible]	" [illegible]	[illegible]	5
" [illegible]	[illegible]	[illegible]	" [illegible]	[illegible]	5
" [illegible]	[illegible]	5	" [illegible]	[illegible]	[illegible]
" [illegible]	[illegible]	4	" [illegible]	[illegible]	3
Miss [illegible]	[illegible]	[illegible]	" Owen	34	5
Mr. [illegible]	[illegible]	[illegible]	" Stevens	[illegible]	17
" [illegible]	[illegible]	[illegible]	" [illegible]	[illegible]	[illegible]
" [illegible]	[illegible]	5			
	[illegible]	[illegible]		[illegible]	[illegible]

3rd Year.	New Cases.	Reps.	4th Year.	New Cases.	Reps.
Mr. Carter	[illegible]	[illegible]	Mr. [illegible]*	4	0
" [illegible]	[illegible]	0			
	67	0		4	0

* This student has now completed his indentures.

All the 3rd year students, doing their hospital practice, have finished their plates, making a total of 10 plates, and the remainder were finished by myself.

The total number of cases completed amounted to 512 new cases, and 167 repairs, of which the students completed 484 new cases and 161 repairs.

With few exceptions, the plates made have been most satisfactory.

The teeth necessary for the plates amounted to 4902 used, from 5040 bought from the dental depots.

The students in the special metal-work class are also shaping well, and show great promise of good work in the future.

For the necessary plate-work 504 teeth of several descriptions were obtained from the depots.

The conduct of the students has been good, taken on the average, and the attendance has been regular, with the exception of two or three.

The opening of the new laboratory has been of great benefit, and has prevented any interference with the work of the different years, for the senior students occupy the new room and the juniors occupy the other.

During the year 500 patients were attended to in this department, and at no time has there been a scarcity, so that the students have been enabled to have continuous practice.

Trusting that this report will meet with your approval, I have the honour to remain, yours sincerely,

U. DANCER, Prosthetic Demonstrator.

STUDENTS.

The roll of the students for the session is as follows:—1st year, L.D.S. course, 28; 2nd year, L.D.S. course, 20; 3rd year, L.D.S. course, 17; 4th year, L.D.S. course, 12; total, 77.

The names of the students attending each year's class are as follow:—

LIST OF STUDENTS.

1ST YEAR.

1 Alexander, W. L. G.
2 Allen, F. J.
3 Barnes, A. E. B.
4 Belcher, Miss A. M.
5 Bissett, E R.
6 Blaubaum, O.
7 Bradshaw, F. M.
8 De Beer, L. R.
9 Donovan, G. T.
10 Dott, W. A.
11 Humpries, C. J.
12 Hutchins, Miss L.
13 Keenan, J. D.
14 Lennon, K. F.
15 Lukins, A. L.
16 Morgan, H. C.
17 Murrell, Miss C. M.
18 McCreey, C. A.
19 McDougall, E.
20 McKinley, C. T.
21 Nattrass, J. A.
22 Naylor, A. G. J.
23 Nicholls, A. O.
24 Odgers, V. F. W.
25 Parrett, F. C.
26 Polack, J.
27 Trenderick, H J.
28 Vernon, R. E. H.

2ND YEAR.

1 Belcher, F. G.
2 Beischer, A. L.
3 Croad, S. B.
4 Deravin, T.
5 Desmazures, P.
6 Ffrost, A. J. E.
7 Fischer, E. S.
8 Fraser, R.
9 Gibson, E. S.
10 Gosney, J. E.
11 Hyslop, K. G. M.
12 Kelly, F. L.
13 King, H.
14 Lambert, A.
15 Mattingley, P. F. C.
16 McCooey, H.
17 Owen, E. R.
18 Payne, G. A.
19 Stevens, E. T.
20 Storey, E.

3RD YEAR.

1 Allen, C. E.
2 Braham, G. S.
3 Braham, R. G.
4 Carter, N. R S.
5 Crombie, Miss M. M.
6 Down, J E.
7 Eggleston, W. M.
8 Govett, D.
9 Lee, W. H.
10 Lyon, W. R.
11 Marron, S. H.
12 Ponsford, C H. S.
13 Rae, Miss M. I.
14 Sainsbury, P. E.
15 Thompson, B. J.
16 Wade, P. M.
17 Wellman, A. R. S.

4TH YEAR.

1 Austin, D. McL.
2 Bennett, H. W.
3 Bindley, S. F. C.
4 Davy, E. A.
5 Dick, A. H.
6 Grant, R. S.
7 Jennens, V. C.
8 Kiel, F. M.
9 McCann, R.
10 McDonough, J. M.
11 Russell, K.
12 Wright, R. A.

The College sent six students during the year for their final examination by the Dental Board for the D.D.S. diploma, and they were all successful in passing, and became eligible for registration as dentists.

The educational curriculum has been further amended during the year by adding dental anatomy, human and comparative, as an additional subject of the first and second years, and by providing for fourth year students attending both the medical and surgical practice of a recognised general hospital, with attendance to include clinical instruction.

The complete curriculum, after passing the authorised preliminary examination and in addition to the three years' articles of apprenticeship required by law, is now as follows:—

(a) FIRST YEAR.

During the first year students attend the following courses of lectures:—

1. Chemistry, Theoretical and Practical.
2. Junior Dental Anatomy, Human and Comparative.
3. Junior General Anatomy.
4. Junior Dental Mechanics and Metallurgy.

The subjects of examination for the first year are:—

1. Chemistry, Theoretical and Practical.
2. Junior Dental Anatomy, Human and Comparative.
3. Junior General Anatomy.
4. Junior Dental Mechanics and Metallurgy.

(b) SECOND YEAR.

During the second year students attend the following courses of lectures and demonstrations:—

1. Senior Dental Anatomy, Human and Comparative.
2. Senior General Anatomy.
3. Dissections, including Dissections of the Head and Neck.
4. Physiology and Histology practically illustrated, with special reference to Dentistry.
5. Practical Metallurgy, including Laboratory work.

The subjects of examination for the second year are:—

1. Senior Dental Anatomy, Human and Comparative.
2. Senior General Anatomy.
3. Dissections, with special examination of the head and neck.
4. Physiology and Histology, with special reference to Dentistry.
5. Practical Metallurgy.

(c) THIRD YEAR

During the third year students attend the following courses of lectures, demonstrations, &c.:—

1. General Surgery, Pathology, and Bacteriology.

2. Materia Medica and Therapeutics, with special application to Dentistry.

3. Senior Dental Mechanics and Metallurgy.

4. Practical Histology and Microscopy, with special reference to Dentistry.

Students must further produce a certificate of having attended during nine months of the year the dental practice of the Australian College of Dentistry, such attendance including clinical instruction and lectures.

The subjects of examination for the third year are:—

1. General Surgery, Pathology, and Bacteriology.

2. Materia Medica and Therapeutics, with special reference to Dentistry.

3. Senior Dental Mechanics and Metallurgy.

4. Practical Histology and Microscopy.

(d) FOURTH YEAR.

During the fourth year students attend the following courses of lectures and practical work:—

1. Medicine.—They must also produce a certificate of having attended during nine months of the year the medical practice of a recognised general hospital, such attendance to include clinical instruction.

2. Oral Surgery.—They must also produce a certificate of having attended during nine months of the year the surgical practice of a recognised general hospital, such attendance to include clinical instruction.

3. Dental Surgery and Pathology, with practical illustrations.

4. Practical Bacteriology, with special reference to Dentistry.

5. Dental Mechanics.

Students must further produce a certificate of having attended during nine months of the year the dental practice of the Australian College of Dentistry, such attendance including clinical instruction and lectures.

The subjects of examination at the fourth year shall be:—

1. Medicine.
2. Oral Surgery.
3. Dental Surgery and Pathology.
4. Practical Bacteriology.
5. Dental Mechanics.

Candidates who have passed all the foregoing examinations, and fulfilled all the prescribed conditions, become entitled to the Diploma of Licentiate of Dental Surgery of Victoria, and to registration as dentists, and this qualification (subject to the passing of the Matriculation of the University of Melbourne in the prescribed subjects under the regulations of the University, the compliance with the regulations of the University, and the fulfilment of certain conditions required by the General Medical Council of Great Britain) will also entitle the holder to the degree of Bachelor of Dental Surgery of the University of Melbourne, and to registration as a dentist in the United Kingdom.

LECTURERS.

The Lecturers for the year were appointed as follows:—

Dr. Stirling, on Oral Surgery.

Dr. Nihill, on Medicine and Materia Medica and Therapeutics.

Dr. Mollison, on General Surgery, Pathology, and Bacteriology.

Dr. Buchanan, on Junior and Senior General Anatomy (two subjects).

Dr. Hewlett, on Physiology and Histology.

Dr. Davis, on Junior and Senior Dental Mechanics and Metallurgy (two subjects).

Mr. Ludbrook, on Junior and Senior Dental Anatomy, human and comparative (two subjects), and on Dental Surgery and Pathology.

Dr. Buchanan has been absent on sick-leave during the year, and his place up to the present has been filled by Dr. Mackenzie, acting as locum tenens for him.

The lecturers on General Surgery, General Anatomy, and on Physiology and Histology were also appointed by the Council of the University of Melbourne to be demonstrators in those subjects at the University of Melbourne, in accordance with the agreement between the Council of the College and the Melbourne University.

AFFILIATION WITH THE UNIVERSITY

During the year the affiliation of the College with the University of Melbourne has been accomplished, although the formal statute sanctioning the affiliation has still to be passed by the University of Melbourne. Various meetings were held by representatives of the Dental Board, the Council of the University of Melbourne, and the Council of the College and Hospital, to consider the matter, and the Council of the College were requested to make the following agreement:—

(a) To provide for the carrying out of those portions of the curriculum which concern itself, in accordance with the recommendations of the Faculty of Dentistry. (b) To grant no degree, diploma, or other document implying any distinctive educational qualification, other than certificates of attendance upon lectures, demonstrations and hospital practice, after the coming into operation of this agreement. (c) To permit inspection of the College and the Melbourne Dental Hospital by the Council of the University at such times and by such persons as the Council shall direct. (d) To appoint its lectureres, demonstrators, and the teaching staff of the Melbourne Dental Hospital annually, and only after approval by the Council of the University, after consultation with the Faculty of Dentistry. (e) To allow the Council of the University to appoint two members of the Council of the College. (f) The lecturers in Anatomy, Physiology, and Pathology at the College to become demonstrators at the University, lectures in these subjects to be given at the University.

These clauses were, with certain modifications providing for the recognition of existing rights, unanimously agreed to by the Council of the College. Though the affiliation has still, as before stated, to receive the formal sanction of the Senate of the University, it may be for all practical purposes looked upon as an accomplished fact, and the Council believe that both the College and Hospital will continue to prosper greatly under the ægis of the University, and that both institutions will as time goes on be a source of great pride to the University, just as the affiliation with the University will become a source of strength to them. Under this agreement

Professor Osborne and Dr. Mollison took their seats at the Council as representatives of the Melbourne University, and they were cordially welcomed.

Hospital Site.

The Council have had the question of the site for the proposed new College and Hospital under their careful consideration during the year, and they will probably give their decision in the matter at an early date in the ensuing year.

The "Journal."

The "Journal," under Mr. Iliffe's editorship, has continued to be a valuable adjunct of the College and Hospital, and its monthly issues are always awaited with interest.

Finances.

The balance sheets submitted by the Hon. Treasurer (Mr. Kernot) herewith, show that the finances of the College and Hospital continue on a healthy footing, and that both College and Hospital have been economically administered during the year.

Conclusion.

In conclusion, the Council can point with some degree of pride to the great strides that the College and Hospital have made during the year. Affiliated as they both now are with the University of Melbourne, and with the Diploma of Licentiate of the Dental Board of Victoria recognised by the General Medical Council of the United Kingdom, both institutions should have a long and brilliant career of prosperity and usefulness before them. The Council have been inspired with the one ambition, to establish dentistry in Victoria on a high professional plane. With a curriculum in force superior to the American curriculum, and equal in every respect to that obtaining in the old country, the dental student of the future should become a highly efficient expert in dentistry, fortified and cheered with the knowledge that his art and science have at length been justly elevated to the rank of the learned professions,

Ernest Joske,
Secretary.

July 27th, 1905.

THE AUSTRALIAN COLLEGE OF DENTISTRY.

STATEMENT of RECEIPTS and EXPENDITURE for year ending June 30th, 1905.

To Balance Forward							£414	6	7			
,, Students' Fees (L.D.S. Course)	£1,054	9	9									
,, Students' Fees (M.A.C D. Course)	13	3	6									
,, College Apprentice Premiums	867	0	0									
,, Dissection and Metallurgy Fees	48	6	0									
				£1,982	19	3						
,, Rents, Locker Deposits & Sundries	21	10	0									
,, Subscriptions	5	5	0									
				26	15	0						
,, Interest on Fixed Deposits				90	15	2						
							2,100	9	5			
							£2,514	16	0			

By Salaries and Wages ..	£653	10	0									
,, Lecturers and Examiners ..	315	1	0									
,, Dissection and Metallurgy Fees	66	10	0									
,, Chemistry Fees	73	10	0									
				£1,108	11	0						
,, Rents, Gas, etc., ...	129	6	0									
,, Printing, Typewriting and Advertising	38	3	5									
,, Petty Cash and Postages ..	18	16	9									
,, Auditor's Fees	8	8	0									
,, Bank Charge for Book-Keeping	0	10	0									
				£195	4	2						
,, Loan				25	0	0						
,, Fixed Deposit in Union Bank	750	0	0									
,, Balance, Current Account	436	0	10									
				1186	0	10						
							£2,514	16	0			
							£2,514	16	0			

Audited and found correct,

F. G WILSON, F.S.A.A., }
F. W. MISCAMBLE, F.I.A.V., } AUDITORS.

July 13th, 1905.

F. A. KERNOT, *Hon. Treasurer.*
THOS. UNSWORTH, A.I A.V., *Accountant.*

THE AUSTRALIAN COLLEGE OF DENTISTRY.

STATEMENT of ASSETS and LIABILITIES as at June 30th, 1905.

LIABILITIES.

To Sundry Creditors for Accrued Fees (approximately)	£100 0 0		
,, Sundry Liabilities to Students (approximately)	200 0 0		
		£300 0 0	
,, Balance of Assets over Liabilities		3,638 0 0	
		£3,938 0 0	

ASSETS.

By Fixed Deposit in Union Bank	£250 0 0		
,, Fixed Deposit in Union Bank	257 10 0		
,, Fixed Deposit in Union Bank	250 0 0		
,, Fixed Deposit in Union Bank	250 0 0		
,, Fixed Deposit in Union Bank	535 0 0		
,, Fixed Deposit in Union Bank	500 0 0		
,, Fixed Deposit in Union Bank	500 0 0		
		£2,542 10 0	
,, Fixed Deposit in Bank of New South Wales	257 10 0		
,, Fixed Deposit in Bank of Australasia	265 4 2		
,, Deposit in Government Savings Bank	256 15 0		
		779 9 2	
,, Current Account in Union Bank ..		436 0 10	
			£3,758 0 0
,, Appliances, Material, Furniture, and General Fixings, College Apportionment (at present value) ..			180 0 0
			£3,938 0 0

The Deposits have actually earned the sum of £125 15s. 2d. Of this amount a sum of £35 has been Re-Deposited.

Examined July 13th, 1905.

F. G. WILSON, F.S.A.A., F. W. MISCAMBLE, F.I.A.V., } AUDITORS.

F. A. KERNOT. *Hon. Treasurer.*
THOS. UNSWORTH, A.I.A V., *Accountant.*

THE MELBOURNE DENTAL HOSPITAL.

STATEMENT of RECEIPTS and EXPENDITURE for year ending 30th June, 1905.

To Balance forward											£79	3	5	By Salaries and Wages				£263	10	10				
,, Donations—														,, Appliances and Materials ..				388	4	3				
Eight Hours' Anniversary Com.				£31	10	0								,, Rent, Gas, etc.				160	12	0				
Treasurer City of Melbourne ..				5	0	0															£812	7	1	
Treasurer Town Council of North Melbourne				1	1	0								,, New Laboratory Fittings, etc. ..				40	2	6				
Trustees of the estate of the late A. Felton				35	0	0								,, General Expenses				23	0	3				
Treasurer City of Richmond ..				2	10	0								,, Printing, Petty Cash, Postages, etc.				11	15	6				
Hospital Sunday Fund				34	6	7															74	18	3	
Treasurer City of St. Kilda ..				1	0	0								,, Patients' Refunds				4	15	6				
Toorak Presbyterian Church ..				1	2	6								,, Telephone and Bank Charge ..				5	10	0				
Other Donations				1	1	0								,, Auditors' Fee				4	4	0	14	9	6	
							£112	11	1															£901 14 10
,, Receipt for Materials used in Operative and Prosthetic Dentistry							1,222	3	0					,, Fixed Deposits, Union Bank							500	0	0	
											1,334	14	1	,, Balance Current A/c							19	2	8	
,, Interest on Fixed Deposit											7	0	0											519 2 8
											£1,420	17	6											£1,420 17 6

Audited and found correct,

F. G. WILSON, F.S.A.A., }
F. W. MISCAMBLE, F.I.A.V., } AUDITORS.

July 13th, 1905.

F. A. KERNOT, *Hon. Treasurer.*
THOS. UNSWORTH, A.I.A.V., *Accountant.*

THE MELBOURNE DENTAL HOSPITAL BUILDING FUND.

STATEMENT of RECEIPTS and EXPENDITURE for Year ending June 30th, 1905.

To Donations—				By Balance Current Account Union Bank of Australia		
Dental Students' Ball Committee	£32	0	6		£32	0	6
	£32	0	6		£32	0	6

Audited and found correct,

F. G. WILSON, F.S.A.A., F. W. MISCAMBLE, F.I.A.V., } AUDITORS.

F. A. KERNOT, *Hon. Treasurer.*
THOS. UNSWORTH, A.I.A.V., *Accountant.*

July 13th, 1905.

COLLEGE NOTES.

DENTAL STUDENTS' SOCIETY.

On Friday, July 21st, the usual monthly meeting of the above Society was held at the Australian College of Dentistry. The chair was occupied by the President, Dr. W. Orr Gray.

Mr. Austin moved that the secretary be instructed to write to the secretary of the University boat club, and inquire if students of the Australian College of Dentistry were eligible for membership of that body, and if so would they be allowed to enter a crew for the inter-schools boat race this year. The motion was seconded by Mr. Thompson and carried. It is to be hoped that the University Boat Club will accede to this request, as we are confident that if they do we will be able to put in a good eight.

The chairman then called on Mr. W. Fielder, of the Melbourne University staff, to deliver his lecture on "The Natural History of an Egg."

Mr. Fielder, who was received with applause, gave a short description of the structure of an egg, and then shewed how specimens and sections were prepared. He then explained the development of the chicken in every detail. The lecture was a highly interesting one, and was made all the more so in that it was illustrated by lantern slides, some seventy slides being used. Those present numbered over thirty, which was a good attendance considering the inclemency of the weather, and all thoroughly enjoyed Mr. Fielder's discourse.

Dr. Gray then moved a hearty vote of thanks to Mr. Fielder for his kindness in attending, which was carried with acclamation. Mr. Fielder thanked those present for their attention, and stated that on some future occasion he would be pleased to favour the dental students with another and perhaps a more interesting lecture. Mr. Fielder moved a vote of thanks to Mr. A. R. S. Wellman for his services as lanternist, and that gentleman was complimented by Mr. Fielder for the manner in which he carried out his duties. The vote of thanks was carried with applause. The meeting then terminated. The thanks of the Society are due to Dr. H. M. Hewlett, who very kindly granted the use of his lantern for the occasion.

The next meeting of the Society will be held on Friday, August 18th, when Mr. Percy Clark, M.A.C.D., will read a paper entitled "Practical Points in Dental Practice."

Arrangements have been made with Messrs. Thelwell and Co. to supply hat bands and caps in the colours of the Society, and we expect same to be available in about two months.

NEW SOUTH WALES

[illegible] NEW SOUTH WALES

[illegible] Monday, June [illegible] Sydney [illegible] Dr. [illegible] Dr. [illegible] and G. [illegible]

[illegible] was examined [illegible]

[illegible] registration were received:—Mrs. [illegible] Amesbury, Glen [illegible] Annandale; Mr. B. [illegible] Mr. B. [illegible] Mr. Wood, [illegible] Mr. J. McLachlan, A[illegible] Mr. J. L. Furness, 72 Marr [illegible] Mr. J. J. McManus, Horsham, Victoria. The following were registered:—Miss L. L. R. Amesbury, Glen Innes; [illegible] Annandale; Harold H. Bond, Sydney; Bellfield [illegible] Sydney; Bertie V. Pickering, Lindfield.

The solicitor's report re case of Edgar Byrne was read by Registrar. The solicitor's report re case of a serious charge against a registered dentist was read by Registrar.

The report from examiners re "Post" held by the Board on June 21st, as ordered, was placed before Board.

Mr. Percy V. Spears, Yass, procured the required number of marks for pass.

Mr. Santelle obtained the required number of marks for pass in Materia Medica, but failed in Mechanical Dentistry and Orthodontia, the Board allowing him to sit again at next general examination at a date to be fixed.

The Registrar reported the death of two registered dentists—Mr. Charles Bright and Mr. Hugh Parry.

The case of a registered dentist of this State practising under an assumed name in another State was sent on to solicitor for report.

The report of an unregistered dentist practising, and an advertisement was sent on to solicitor for report and action.

Motion standing in the name of Mr. Marshall was seconded by Dr. Palmer: "That in view of the wording of Clause 'A,' section 11, and its application to all the succeeding clauses of section 11 and section 12, it is hereby resolved that all further applications for registration must be accompanied by at least three recommendations as to good character from independent persons." After discussion, it was moved by Mr. Stinson, and seconded by Mr. Russell: "That motion be sent to solicitor for legal opinion, and also as to power of Board under Section 'A' of section 11."

Motion standing in the name of Mr. Marshall: "That, in view of the necessity to provide adequate equipment for the purpose of holding examinations, as provided in Clause 'C,' section 11, and further carrying out the intentions of the Act to raise the status of dentistry in this State, this Board does hereby resolve to place the sum of £1000 at the disposal of the United Dental Hospital authorities, on their undertaking to provide such place of examination and equipment as is necessary for such purpose, such premises and equipment to be held by the Dental Hospital authorities at the disposal of the Dental Board at such reasonable times as may be mutually agreed upon, for the purposes of such examinations" —was ruled out of order by the President, the solicitor's opinion being read, which clearly stated "that Board could not expend moneys other than for the purposes of the Act."

Meeting closed at 11.5 p.m.

HORACE TAYLOR, Registrar.

A special meeting of Board was held at Board Room on June 8th. The President (Mr. C. G. Hodgson) took the chair at 8 o'clock p.m., there being also present Mr. C. Hall, Mr. C. C. Marshall, Dr. Palmer, Dr. Peach, and Mr. G. Norton Russell.

The matter of Amendment Bill was to have been discussed. Mr. Hall reported that a deputation representing the Dental Association, the Odontological Society, and the University had that day waited upon the Chief Secretary, Mr. Hogue, and laid before

him the proposed Amended Bill as proposed by these bodies. After discussion, it was moved by Dr. Palmer and seconded by Mr. G. Norton Russell: "That the matter of the Amended Bill be left for the present in the hands of the President, so that he may inquire into what steps had been taken by the other bodies; that the President be also empowered to communicate as he may think fit concerning this matter with the Dental Association, also with the Ministry."

An amendment was moved by Dr. Peach, and seconded by Mr. Hall: "That the latter words 'also with the Ministry' would tend to delay legislation; that they should be omitted from the resolution."

The amendment was put and lost by three to two, those voting against being Dr. Palmer, Mr. C. C. Marshall and Mr. G. Norton Russell. The motion was declared carried.

The matter of a serious charge against a registered dentist came up for discussion, and on the motion of Mr. Hall, seconded by Dr. Peach, it was moved: "That in this case the contradictory nature of the evidence precludes any present action by this Board."

An amendment was moved by Mr. Russell, and seconded by Dr. Palmer: "That the Board was in doubt of the sufficiency of the evidence before it, to warrant action being taken, but referred the matter to Board's solicitor for legal advice."

The amendment was carried by three to two.

Meeting closed at 10.5 p.m.

HORACE TAYLOR, Registrar.

THE ODONTOLOGICAL SOCIETY OF NEW SOUTH WALES.

The usual monthly meeting of the Odontological Society was held on 10th July, at their rooms, Liverpool Street, Hyde Park, Sydney.

Those present were:—Mr. P. B. Reading, L.D.S. Eng. (in the chair), Drs. Burne, Hinder, Carter, Pockley, Forsyth, and Deck, and Messrs. Chaim, Bradley, Charlton, Pawley, Blackwell, Robinson, Pierce, Gabriel, St. George, Walker, Satchell, Hodgson, Vaughan and Donald Smith. The minutes of the previous meeting were read and confirmed.

CASUAL COMMUNICATIONS.

MR. DONALD SMITH: At a recent meeting Dr. Deck demonstrated a card system of bookkeeping in connection with dentistry, and while I had some difference of opinion with Dr. Deck and Mr. Blackwell, still, I thought that as a system of daily record of work done, it was a very good idea, for which I have the greatest admiration, and one great feature in its favour was that you could take it out (the card), and make notes on same, while your patient was in the chair, and that is the most valuable use to which this card system could be put, but for bookkeeping it is not sufficient. I have been evolving in my own mind a scheme of the same sort, and I have here an indexed file, which would be very inexpensive. While my idea of the cards has all the marks of Dr. Deck's card (that is the kind of teeth, and the work), it is simply a daily record of work done, and does not show any cash column of debits or credits. This file looks rather small beside Dr. Deck's, but the cards are larger, and will therefore take more on them, this being in itself an advantage. It is better to have larger cards, which will hold more; therefore you require fewer cards to file away. Then again, this file costs 2/6 or 3/-, instead of 30/-. It is made of leatherette, is pretty strong, and is indexed on the top. (Cards passed round for inspection.) The cards are very cheap, and are used for daily reference only; it is a memory system, on a small scale; it will cost only one-fifth of the other system, and be just as effective. There is no column for £. s. and d., but that could be ruled off if desired. I think this system is very useful, just as satisfactory, and a good deal cheaper than Dr. Deck's system, besides which it does not take up much room.

DR. CARTER: Two brains very often work in the same way. I have exactly the same thing in my office. I use altogether three files, one with a record of work done, one ready for accounts to be sent out, and when the accounts are paid they are put in a third file, showing they are finished with, and I find it works very nicely.

MR. BLACKWELL: Mr. Donald Smith's system of daily record cards seems a good one, but they are only a daily record, and I must say I think it would be better to have the £. s. d. column.

DR. DECK: Mr. Smith's system is more to get out, and to pull it out every time it is wanted, you would find the cards would get all over the desk. It may be cheaper; but I do not think I would consider the expense in this case.

MR. GABRIEL: I have also something of the same system, but which is cheaper still, as I have the cards, which I keep in the top of my roll-top desk, Thus I have done away with even the 2/6 for the file.

MR. DONALD SMITH: I think the system of filing letters and things of that sort in files of this description is absolutely necessary. It serves to keep your correspondence, papers and accounts in order, and unless a man conscientiously files these sort of things away, some day he will find it very awkward if he wishes to look up a letter or something else. In order to put these cards in your roll-top desk, they must be very small, and small cards lead to very cramped writing, consequently I do not recommend it as being better than the other cases; and the card being cheaper I think is of no advantage, as you have to use two cards to take the same number of lines as this one has. I think it is a great mistake to have too many cards. The smaller the number of cards in use, the better. I do not recommend my idea as against the other, but for a man who is busy, and cannot remember everything he has done, this card will be an excellent thing; and I do not think it is at all detrimental to have it in a file like this. I have other uses for my roll-top desk than to stock it up with these cards.

MR. SATCHELL: A day or so ago a lady came to me with her first bicuspid very much decayed, and her second growing right inside the arch. I extracted the decayed bicuspid, and put the sound tooth into the socket of the one I extracted, and have since found the case very satisfactory; no trouble with it whatever. This was done last week; I had to enlarge the socket a little to allow of the second bicuspid being placed in where the first bicuspid had been extracted. I took an impression first, then filled the tooth, and finally put it in the socket of the one I extracted. I prepared the tooth by drilling the root, and extracting a nerve, and then stopping the tooth. The root of the second bicuspid was a little bent, so I cut it down a sixteenth of an inch. I saw a case the other day, which I had fixed up ten years ago, and it is quite

satisfactory now. The case was one in which I extracted a fairly good tooth, then enlarged about a sixteenth of an inch of the socket, and put it in the second tooth; and that tooth has lasted all these years. Before working I used an injection of cocaine, There was no pain with the extraction, and very little with the drilling of the socket. The tooth fitted very firmly, but I told my patient to be very careful to bite on the other side, and to keep her mouth shut during that day, and it is now perfect. There was no irritation at all.

DR. BURNE: I have here a little thing that might be handed round for inspection. It is an idea suggested by some one in the "American Dental Journal." It is a small cone, on which is fitted a small piece of rubber tubing, which is very useful for polishing with pumice. And its great charm is that you have no chance of using it a second time, When you have used a portion you take it off and throw it away, should you want any more, you get a fresh piece of tubing. It is home-made, and easily made.

MR. ST. GEORGE: We found out the other day that granulated plaster could be removed from a plate by placing same under a tap for about half-an-hour.

MR. WALKER: I have a case just come under my notice of a little girl of eleven years of age, in which every one of her teetn in the upper jaw is decayed. I should like to ask the opinion of the members as to how to treat this. I should say nitrate of silver to paint the teeth with, and then to fill with cement. The child has not a good tooth; the face of the canines are completely eaten away.

THE CHAIRMAN: Have you got the constitutional history of the parents?

MR. WALKER: No, I have not yet seen them. The child only came in to see me on Saturday, and the trouble is worse on the left side of the mouth than on the right.

THE CHAIRMAN: The case Mr. Walker mentions is interesting, and it would be worth while getting the history from either of the parents. It is a deplorable thing in a child of that age, to have all those teeth gone. In an adult, where the teeth are very sensitive, the use of milk of magnesia is supposed to prevent or do away with the sensitiveness.

MR. WALKER: In the case of a child, it would be necessary to fill those teeth: it would be no use having them out till the child is of an age to have them further seen to.

DR. BURNE: I should like to ask if the idea suggested itself to Mr. Walker of using a jacket crown. I have known them to be very successful in cases such as this.

MR. WALKER: Until the child is able to bear this, would you hinder the erosion by applying nitrate of silver? The child fell from a horse some six months ago, and broke her elbow: she is a very sensitive child. There is certainly decay, besides erosion, but it is certainly erosion which is causing the trouble. I have not tested the saliva to see whether it is very acid.

DR. DECK: Nitrate of silver solution, I think, is recommended in a case of this sort, neutralising after with iodine.

THE CHAIRMAN: I shall now call on Mr. Walker to give us his paper on the taking of "Plaster Impressions."

MR. WALKER: I have to apologise for leaving behind the models and impression trays I intended to bring with me. I was very much hurried, and in my haste I left these things behind me. However, I hope my paper will be sufficiently descriptive to make you understand just what I mean.

"METHOD OF TAKING PLASTER IMPRESSIONS."

It is well in these days, when every portion of our art is advancing with such rapid strides, that we should not forget the knowledge that we have lying dormant, but review it, and bring it into actual practice. We have to own that many of the so-called new things in dentistry as in all other circumstances of life—are simply cases of "history repeating itself." I have no doubt that that which is presented to you to-night, in this short paper, will not be new to many of our members, but if there is one to whom it may be of practical service, it will not have missed its mark. It is often that a hint may be all that is needed to complete some scheme, or method, in the mind of the hearer, and this is one of the advantages we gain by our coming together in our meetings.

In the practices of each one of us, of necessity we have constantly to take impressions of the mouth for various purposes, either for regulation, crown and bridge work, the prosthesis for cleft palate, or the adaptation of an upper or lower denture, as well as complete

edentulous cases. The compounds with which this operation is performed are many and varied, but those most in common use may be, for all practical purposes, narrowed down to two, viz: Composition, a compound of gum dammar, wax or stearme, and colouring matter, plaster of Paris, sulphate of lime or gypsum—each have their advocates. It is of the latter I wish to speak to-night.

If we consult the text-books, we find each author has his own ideas on the subject of using this extremely valuable but difficult material, but I have yet to read of any—save the authority from which most of this article is taken—who recommends the method set forth, except to warn you not to proceed in that manner.

It is not that I would in general practice confine myself to any one material, because we know it is often impossible to get the result we aim for. Then we must use that which is applicable to the case in hand; but I am sure that the way I outline to-night will help us in some of the problems that present themselves in our day's work.

I propose to classify my subjects under four classes of impressions, viz.:—

The Edentulous cases: Upper and lower.
Cases with incisor teeth standing.
Cases with molars only standing.
Cases with long, loose or divergent teeth standing.

Edentulous Cases.—Our first concern will be the correct position of the patient, who should be seated in a comfortable posture, leaning a little backwards, the operator taking his stand at the right side, and a little behind, so that he may have a clear view of the oval cavity. The impression tray should be one that as nearly as possible fits the mouth, yet leaving a sufficient margin to give an average thickness of plaster over its surface. It is needless to put a ridge of wax on the posterior portion, or to in any way manipulate it, other than with the quantity of plaster used. Tepid water, to the amount necessary, is placed in a cup or rubber bowl, a little salt added, the plaster—"Ash's Superfine" I use—is sprinkled in and stirred until the usual lather is made; this is then placed in the anterior portion of the tray only, more being placed at the sides than on the palate, if a high impression of the buccal portion of the mouth is wanted, for should too much be placed on the centre of the

tray, directly the upward pressure is given it would run beyond the back, and fall into the mouth. The tray is now inserted, care being taken to get the centre of the handle to the median line of the mouth, the lip is raised, and the tray passed to position; a gentle pressure is then made from the front backwards, the appearance of the plaster along the posterior edge of the impression tray telling you when to cease pressing. It is here the good judgment of the operator is shown in rightly estimating the amount of plaster necessary. Should the vault be high, or narrow, a little plaster packed with the spatula, and the tray put in and pressed to position will answer much better than building up with wax or composition. In only this, and the lower impression, may the plaster be allowed to become hard before withdrawal. The usual method of detaching, lifting the cheeks and pressure on handle of tray is followed. Should the impression leave the tray, and remain in the mouth, it may be grasped at one of its posterior extremities, and a portion broken off, which generally sets free that which remains. Great care should be taken in choosing the lower tray, that it should not be too wide at its extremities, or it will, by pressing the cheek out of place, cause a shortened impression, imperilling the stability of the finished denture.

Incisor Teeth Standing.—The second class, those with the incisor teeth standing in upper. We should select our tray with as much care as possible, and examine the mouth well to estimate the amount of plaster necessary. In this case the anterior portion of the tray is exactly fronting the incisors that are standing; this must be cut away to allow of easy removal of impression. The plaster is placed on the tray following the principle shown to you, then pressed home to its position in the mouth. It is held by one hand, and plaster is spread on the labial face of the teeth. When set, the front piece is broken or prized off, and the tray gently pressed backwards into the mouth and then withdrawn. The process is the same for the lower jaw, with the exception that when the tray is approximately in position, the pressure is made from the back forwards, the plaster placed over the front of the teeth, broken off when set, and the impression withdrawn as before stated.

Molars Standing.—The third class. The cases in which the incisor teeth have been lost, leaving some of the molars standing, need

a little different treatment than those formerly considered. Often these teeth are cut of position, bulbous, and perhaps the roots partly exposed. Most of us have experienced the difficulty of getting a good impression in so unresisting a material as composition, dragging and distortion being the rule rather than the exception. With plaster, the shapes of the teeth are good, and there is no displacement of the impression of the gum. In this instance, the plaster in the tray is carried further back at the sides, very little being put in the centre. When getting the tray into position in the mouth, it is carried well back, slightly raised to bed the molars, and is then drawn forward until the anterior portion of the mouth is within its limits, and then pressed lightly to its place, the pressure given being from the front backwards, until the plaster appears at the back.

Long, Loose, or Divergent Teeth Standing.—The fourth class. We will now treat those cases where the teeth are standing in either the upper or lower jaw; this is the class which will call forth all the watchfulness, care and skill of the operator. The tray may be roughened by scratching with a knife, or a few drops of hot wax may be put on to help the plaster to adhere to the tray. It is only by practical experience one knows when it is the right moment to withdraw the tray with the impression, it varying, as does the time different kinds of plaster take in setting; but the rule which must be strictly adhered to is, that as soon as the plaster left in the bowl will break cleanly in ever so slight a degree, or can no longer be crushed easily—scraps being constantly tested by the operator from the time the impression is placed in the mouth—then the effort to dislodge or withdraw same must be made; when you feel the impression is loosening, proceed carefully but expeditiously. If the plaster is allowed to set too hard—and the time between just right and too hard is so very slight—the plaster will leave the tray, and very likely you will have to take the lot away in pieces; if there are too many of these, it is better to take a new impression altogether.

With the long, loose and divergent teeth often found in the lower jaw, when dovetailed spaces are very much in evidence, and when an impression in godiva is nothing like the original, then it is that plaster, though very difficult to use, maintains its superiority. If we could get a perfect reproduction of the mouth in question, and

make a case to fit it, we should be unable to get it in place without an immense amount of carving and trimming of the interdental spaces; but, with a plaster impression removed from the mouth—when the plaster is only just beyond the soft stage—the teeth drag their own way out, and so leave the impression of the gum untouched, the plate made on such a model being comfortable from the start.

It must not be supposed, gentlemen, that all these operations have been gone through without breaking some of the impressions. Alas! it is too often the case, but with care you do not get very many pieces, however. When such pieces are left behind, it is better to allow them to harden somewhat, and then to remove them, immediately washing lightly in water, then replace on the impression, sticking with wax.

One point I must touch on before concluding, and that is the matter of a patient becoming sick, and retching, when the impression is put into the mouth. I have not found this any more prevalent with plaster than with godiva. Should such occur, the repeated trying in of the tray, and the mouth rinsed with a solution of 1 per cent. camphenol, will very often overcome this tendency, and be very successful, though perhaps it is not pleasant to the patient.

And now, gentlemen, I have come to the end of my paper. I have endeavoured to do without padding, or going into well-known detail, giving—as well as in me lies—a short, succinct statement of a method I have found useful, and it is to be hoped I shall not be charged with having wasted a valuable evening, with so many old practitioners, fathers of the profession in New South Wales. It is with diffidence that one presents their maiden effort. I now leave it with you, thanking you for a patient hearing, and I trust that the discussion may be infinitely more profitable than the paper.—(Applause.)

THE CHAIRMAN: We have heard Mr. Walker's paper, and I am sure there are numbers here who would like to say something about it.

MR. CHAIM: There is one point Mr. Walker touched upon in which I differ from him, and that is, instead of having a patient lean backwards for taking a plaster impression, I advocate for the patient

to lean forwards, and then you will find there is very little trouble as regards retching. A good many people are afraid the plaster will go down their throats; the moment you put the plaster in the mouth you will find there will be no trouble as regards retching. There is one great trouble with a number of patients, a good many of them retch if they lean backwards; the further back a patient leans while taking an impression, the more trouble you have. Then again, I always put a rim of wax round my impressions. For instance, say two back molars and two canines were in, how do you get the plaster into the mouth? I must apologise, but I may have misunderstood the paper. I use my finger to put the plaster into the hollow space. If you use a spatula to put the plaster in you have to keep going, and before the impression is inserted the plaster is set. Then, how do you fill up the space of the two canines? I fill the whole lower jaw with plaster, before I put in a tray at all, on both sides, then, if there is a little left I put the tray in the proper place, then press with my finger, and instruct my patient to lift the tongue, and with my thumbs I get hold of the lower jaw, and so get a good impression. If you have a small mouth, with those teeth standing, and you put the plaster inside the tray only, you would not get enough plaster there.

Mr. Walker: With regard to the retching. I must say I have very seldom experienced this. The idea of the patient leaning back is so that you can see, and no plaster is left in the mouth. As soon as the plaster appears at the back of the tray you cease pressing; you know every space is filled then, and you see exactly what you are doing, and, with the impression of the long teeth standing, you have the angles, and if you break off the front portion you can get the impression out easily.

Mr. Donald Smith: I am very sorry to say, as I was writing, I did not hear the whole of the paper, but with reference to the importance of getting your impression out in the tray, I do not agree with Mr. Walker at all. My object in taking an impression is to get the tray away first, then break the plaster away, so that I can get it on the tray again. I like to have plenty of room, so that I can have sufficient thickness of plaster, so that when an impression is broken it can be easily put back again. I think it is more important to get the tray out first, than to get the plaster impres-

sion out in the tray, as you design it from the mouth. I think it is advisable to look into the mouth well, and to take an impression, so as to see whether you are forcing too much plaster down to the back; I have only had one or two cases of this kind.

MR. WALKER: I have here one impression, which, however, I did not intend to show, it not being one of the models I had for this evening; but you will see, if you turn the tray over, how the plaster appears at the back. (Specimen passed round for inspection.)

MR DONALD SMITH: I like to have something at the centre of the tray, at the back, so as to get an impression of that part. There is not sufficient plaster at the back, it flows rather too easily there. The impression of the centre of the palate at the back is somewhat defective.

MR. SATCHELL: If the plaster flows over at the back, you can always very quickly remove it.

MR. CHARLTON: I find by putting a little piece of cotton wool at the back of the tray, sticking same with wax, will prevent the plaster from going down the throat.

THE CHAIRMAN: I quite agree with Mr. Chaim with regard to the position of the patient; there is much less retching when the patient is leaning forward than when leaning backward. I should like to ask Mr. Walker if he gets a better impression by pressing from the front backwards, or by pressing from the back forwards?

MR. WALKER: I have made a success of the one method, and consequently have kept to it, and have thought that it is a method suited to a man of no very great ability.

DR. BURNE: I have a little to say on this subject. I suppose I may be considered a little old-fashioned in my ideas. In the first place, I believe in the rim of wax at the back, attaching to same a small roll of cotton wool as described by our friend here. When it is a typical case I do not want any wax: I have a well-polished tray, and then get my tray away. In St. Louis I saw the boys piecing some impressions, in one or two cases there being 10, 12 or 15 pieces. It fairly made my head ache to think how they were going to place them together again, but they did it. I do not believe in the stirring of the plaster. It is my idea that boiling water, if used, will contract the plaster to an enormous extent, both in the vulcanising and the impression itself. The idea I have followed for

very many years, in taking full dentures, is to take the impression with wax, then cool it under the tap, and I cut it to the depth of about a half-crown; with that I know I can get my plaster well in place. Most of you will probably think that after taking the plaster out, it will be absolutely false at every step, but it is not so. Then there is the difficulty of removing. I thought this matter over for a long time, and then made a tray, with which I find I can do anything in the world. I will hand it round for inspection. (Tray handed round for inspection.) This tray consists of about 6 or 7 pieces, and the tray itself is vaselined. When the impression in the mouth is perfectly hard, you will have no trouble in getting all the pieces away, and no trouble in joining them. You will see that the tray moves on a swivel so as to get the desired position in the mouth, and the little pieces are placed in, no matter how difficult. By placing your knife inside, you will generally find they will separate fairly in the centre; join them together, and in 9 cases out of 10 you will have a perfect model.

MR. WALKER: I use a little salt in the water for mixing a plaster impression, and in all plaster for vulcanising.

DR. BURNE: I use sulphate of potassium, with better results than salt.

THE CHAIRMAN: Has anyone else got any suggestions to make?

THE CHAIRMAN: I have to thank Mr. Walker for his paper. It is always valuable to hear these everyday occurrences, and I also have to thank Dr. Burne for his very valuable comments. There are lots of cases where you have to break the plaster; of course there is another way of doing it, and that is by putting a band of wax all round the tops of the teeth, inside the tray, and that holds well.

DONALD SMITH, Hon. Sec.

A RABBIT'S UNUSUAL DENTITION.—A rabbit caught by Mr. J. McGurk, at Woosang, near Charlton, Victoria, had two curved teeth, each about an inch and a quarter long. The tooth from the upper jaw curved up to the nostrils, while the tooth from the lower jaw curved round into the mouth, and, acting like a spring, prevented the mouth being properly closed. The rabbit was full-grown.— Melbourne "Argus," 17/7/'05.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The 124th monthly meeting of the Dental Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, 7th inst., at 5.15 p.m. There were present—Dr. Astles (President), Drs. Earle, Newton, and F. M. Wilkinson, and Mr. A. J. Wright. Dr. A. J. Bennett sent an apology for non-attendance.

The minutes of the previous meeting were read and confirmed.

Foreign Diplomas.—The Dental Board of New South Wales wrote, conveying their full accord with the action of the Western Australian Dental Board, in endeavouring to obtain uniform laws in the Commonwealth States in regard to foreign diplomas. The Dental Board of Tasmania wrote in a similar vein, but added that, as the United States refused to recognise leading British qualifications, the Tasmanian Board declined to recognise American diplomas as alone giving the right to registration.

Apprentices.—A communication was received from the Sydney University, stating that that body could not accept the syllabus of the Board's preliminary examination for apprentices as being equal to the matriculation examination.

Correspondence was received from Thomas A. Black, Cyril Deague, W. Boxall, James and Darbyshire, L. Eskell, Chas. Hall, "Australian Dental Journal," Ralph Potts and the police.

Finance.—The bank certificate was produced, and accounts were passed for payment.

Francis M. Syme, Registrar.

Taking Impressions.—I have one little suggestion to offer in the taking of impressions—particularly in those cases that are extremely sensitive and easily nauseated—that I have found useful and helpful, and that is to sponge the mouth with hydrogen dioxid. After having thus cleaned all the mucous surfaces, apply a 3: 100 solution of eucain to the whole palate. That will enable one to take an impression in the most exaggerated cases of palatal sensitivity.—T. B. Hartzell, "Dental Review."

QUEENSLAND.

THE DENTAL BOARD OF QUEENSLAND.

General meeting held at the Board's office, 39 Adelaide Street, Brisbane, on Tuesday, July 4th, 1905.

Present:—The President (Mr. D. R. Eden), Dr. Brockway, Mr. E. F. Hughes, Mr. F. A. Huet and Mr. H. S. F. Moran.

The minutes of the previous meeting were read and confirmed.

The Hon. Treasurer reported a satisfactory credit balance, and accounts were passed for payment.

The outward correspondence of last meeting was read, and the inward correspondence received since was dealt with.

Messrs. H. W. Gibson, of Toowoomba, and J. F. McNaught, of Bundaberg, were registered as dentists entitled to practise.

The Registrar reported that a copy of the amended By-laws had been forwarded to every registered dentist.

The question of amending the Dental Act of 1902 was discussed, and a sub-committee appointed to draft the necessary amendments and submit them to a special meeting of the Board.

T. B. Hunter, Registrar.

THE ODONTOLOGICAL SOCIETY OF QUEENSLAND.

The June meeting was held at the A.J.S. Bank Chambers, Queen Street, Brisbane, on the evening of Tuesday, 20th inst.

There was a large attendance of members, and the chair was occupied by the President (Mr. D. R. Eden). Mr. A. McNaught, of Bundaberg, was elected a member.

Mr. F. H. Stephens, of Maryborough, was nominated for membership.

A special committee was formed, consisting of Dr. E. T. White, D. R. Eden, W. G. Henderson and W. H. Parker, to make arrangements for the special meeting in August, during the time of the annual exhibition.

Papers and classics of general interest were partly arranged. Mr. C. Pound, Queensland Government Bacteriologist, promised to give a demonstration on the bacteria of the mouth.

It was decided to ask the Southern Odontological Societies to assist in the meeting.

Casual Communications.—Mr. F. A. Jones presented an abnormal second lower molar, in which a wisdom tooth had developed between the roots of the molar. One side of the wisdom root had germinated with the distal root of the molar.

Several supernumerary teeth of peculiar shape were also shown by Mr. Jones.

The following paper was read by Dr. Hurworth, who afterwards gave a table clinic of Jenkins' porcelain:—

Some Considerations in Porcelain Work.

BY C. W. HURWORTH, M.A.C.D., D.M.D.

The careful reader of the best American dental journals of the last few years will have found excellent papers on the methods of construction of porcelain inlays. Much has been written, and a fierce war raged on high versus low fusing bodies, but neither side has obtained what may be termed a glorious victory. To-day we find excellent work done by both the high and low fusing advocates.

The following considerations apply more or less to all porcelain bodies, and are facts that become manifest to me in carrying out this section of operative dentistry.

Cavity Preparation.—The saucer-shaped inlay is a complete failure. All cavities should be made as retentive in shape for the inlay as possible, and not wholly to depend upon the cement for retention, naturally avoiding undercuts. The ground-glass stopper of a bottle is the best illustration I know of ideal preparation. While this, in practice, is reasonably easy to labial and buccal cavities, it is less so in approximal. The more surface of porcelain in close proximity to the tooth the better. In approximal cavities the lingual wall should be cut away in preference to the labial. This applies particularly to large cavities, as the pressure is outwards during mastication, so the force thus applied will tend to drive the inlay against and not from the tooth structure. The inlay should, however, never be allowed to articulate the opposing teeth. The floor of the cavity should be as flat as possible, to give a good seating form and self-identification. The walls should be made as near right angles as possible, conditionally the cavity is accessible.

Margins.—No stripping should be given, as a rounded margin

would be formed. Small Arkansas or gem stones give the best results, making the edge radiantly smooth. While it is claimed that gold cannot be adapted to a polished surface, porcelain is best adapted to such a surface. Greater separation is ordinarily demanded than for a metallic filling. I frequently use the immediate separator to start the space, filling such with absorbent cotton wedged in tightly or tied with a silk ligature. By so doing, time and tenderness is lessened. This increased separation is necessary, not only for the removal of the matrix, but for the desirable space for pressure when cementing the inlay in position. It is always a pleasure to see an inlay a few days after insertion approximating tightly against the next tooth. The polished inlay that is approximating, and with the assurance that it will not pit or change shape, assures that it is the most natural in every detail of our filling material.

MATRIX FORMATION.—This is best accomplished in my hands by direct burnishing, using either gold or platinum. Jenkins' chamois discs, combined with amadon, are excellent for either matrix material for the bulk of the cavity. Platinum, 1000th thickness, cannot only be burnished, but stretched towards the margins, by means of steel or ivory burnishers, so that the margin may be made even thinner. The final burnishing demands fixity of the matrix; rubber dam stretched between the teeth and over the matrix facilitates the final effort.

THE CHOOSING OF THE COLOUR.—While it is generally not a matter of great difficulty to obtain a good-fitting inlay, yet there is more or less uncertainty as to the exact colour of a finished inlay. On examination of the teeth, it is seldom found that a cavity of any size has margins of one colour; almost invariably there is a darker shade towards the cervical margin. I find, however, that it is always best to increase the underlying colours. If the tooth be yellow towards the cervical margins, choose a more decided yellow; and if grey towards the incisive edge, make such more pronounced. The cement has a tendency to dull the underlying colours. As all teeth become darker with age, choose a cement that will make the inlay on the dark rather than on the light side. Inlays always seem to lighten after the cement has completely crystallised. This seems to take hours with the thin consistency

that is necessary for its use in porcelain work. We cannot expect the pale yellow to appear the same in natural as in most artificial lights. The teeth are always more or less moist with saliva, so the colour should be taken when the tooth is wet.

DENSITY OF PORCELAIN.—The strength of the porcelain will depend upon its density. The density is not altogether a matter of over or under fusing, but largely upon the condensation of the body prior to the fusing. For this reason it is well to bring the moisture to the surface by gentle tapping or ribbing on the tray or pliers, if no investment is used; and as the moisture comes to the surface, add porcelain nearly dry. At the final building up, use the fibre absorbent with light pressure.

FUSING PORCELAIN.—The term "biscuiting," applied to the fusing of a carved or blocked tooth is quite different to that of inlay biscuiting. For the former porcelain is heated to such a state that the particles are sufficiently coherent to allow of the shaping by cutting, filing, sand-papering, etc. The consistency of this is that of cuttlefish. For inlay biscuiting the object is to take up the bulk of shrinkage of the porcelain, and is thus baked to a hard state; it should be hard, with a frosted, dull surface, but not glazed. Properly fused porcelain is smooth and glazed, yet retaining the correct colour, as compared with the underfused, which will grate to the finger-nail. I believe that all the layers should be only biscuited, the final fusing to give the glaze and correct colour. It is immaterial whether the porcelain is quickly cooled after biscuiting, but after the final fusing the porcelain should be gradually cooled, to "temper," and so give the greatest strength.

ETCHING AND DISCING.—In the use of hydrouflic acid, care must be taken to protect the exposed surface by investing in wax. It is also important to wash well the porcelain with alcohol after the use of acid, as a small powder is left by the action of the acid, so the cement may attach to this powder instead of the porcelain in setting. I believe in grooving the inlay with a diamond disc at its strongest part, as well as making a small groove in the cavity as an additional hold to the cement. Light touches of a sand-paper disc are quite as effective as the acid. The powder from the disc should also be removed from the inlay, especially

in the grooves. It is a mistake, to my thinking, to dehydrate the cavity to an extreme, not only for the sake of the tooth, but for the adhesiveness of the cement. Most cements require slight moisture in their best crystallisation. When the rubber dam is applied, I wash out the cavity with $H_2 O_2$ then wipe the cavity with bibulous paper, and follow this with a very light draught of warm air. Extreme dryness is certainly to be avoided.

CEMENTATION OF INLAY.—No time should be lost between the mixing of the cement and its introduction into the cavity. My lady assistant has been trained to mix cement properly, so I am able to use cement at a thick, creamy consistency, sliding or rocking the inlay in so as to expel the air. Continuous pressure is necessary until the crystallisation of the cement is complete, and previously knowing the articulation is correct, I tie a silk ligature round the tooth, and inlay sometimes in conjunction with a wedge, and cover with flexile collodion. It is well to keep the rubber dam on for at least twenty minutes, and remove the silk and wedge the following day. This may be done by the patient after a little explanation. The rubber dam is easily removed without dislodging the silk or wedge by stretching from the top end, so as to draw it tightly between the teeth.

I am thoroughly convinced that one of our best filing materials is porcelain, either alone or in combination with other filing materials, and my best patients are really pleased with the result. I fully believe that our best clientelle are becoming, as well as ourselves, more artistic in their demands in operative measures in their oral cavity.

The monthly meeting was held in the rooms of Mr. F. A. Jones, Queen St., Brisbane, on July 18th. On account of the indisposition of the President, the chair was taken by Mr. F. Hughes, Vice-President.

The ballot showed the election of Mr. F. H. Stephens, of Maryborough, Queensland.

The report of the Committee for the "August Show Meeting" was received. It was decided to commence this special meeting on Thursday afternoon, August 10th, at 4 p.m. A dinner will be held at 7 p.m., and followed by an evening session. The hope was expressed that southern and country gentlemen would assist in the meeting.

Mr. F. A. Jones then read a paper on "Root Treatment and Filling":—

Mr. President and Gentlemen,—About a fortnight ago our secretary asked me to fill up a gap at this meeting by reading a short paper on "Treatment and filling of root canals," and (with some reluctance) I consented. Owing to the little time at my disposal for preparation of the paper, I cannot expect to do justice to the subject, but I know I may rely upon your indulgence for any short-

comings. We all know how rapidly dentistry, as a science, has progressed. We know, too, how people have become educated in the matter of caring for the natural teeth; so that dentistry to-day is not merely a practice of extraction and replacement by artificial substitutes. The preservation of the natural teeth, by filling, is now the principal feature of our work, and is one to which the principle of thoroughness applies very strongly. We are called upon at times to perform very difficult operations for the benefit of our patients, one of the most difficult being that of treating and filling the roots of some of the teeth presented to us, often taxing our knowledge and skill to the utmost. The object in presenting this paper is really to promote a lively discussion on a subject in which we are all deeply interested. It is by no means a new subject, having occupied the attention of the dental profession, as it has done, for many years; still it is one upon which opinion is as diversified as any subject pertaining to dentistry. Although much has been written about it, and many able discussions have been held upon it (from which we have learnt much), still the end has not been reached. Different theories and methods have been advanced and presented, newer ones in some cases displacing older ones (though these still have their advocates), but it is as yet a matter of question which of these most nearly approaches perfection. The principles underlying the treatment of roots are little altered, though the agents employed are so varied. To my mind, the treatment (and filling) of the root is, if anything, more important than the filling of the crown cavity, though we must not lessen the importance of the latter.

The principles involved in this work are thorough cleansing, and complete closure of the space. The teeth where root treatment (and filling) is called for are: (1) Those with freshly devitalised pulps, (2) those with pulps in a putrescent state. In the former case we have little trouble compared with the latter. I have not time to deal with the several methods and numerous materials used both in treating and filling root canals, and I am not sufficiently conservative to advocate one particular course of procedure; but on some points we must be decided. First of all, full access must be gained to the canal by cutting away the crown well. Thus it is easier to introduce an instrument into the canal for the removal of its contents, whether remnants of pulp or other debris. Besides this, we are better able to see what we are doing, which is, to me, an important item. Having gained free access to the canal, thoroughly remove all fragments of pulp, &c., working gently to the apex. For this purpose I use a broach, a sign from the patient indicating that the apex is reached. Care must be taken not to force any matter through the apex. In a freshly devitalised or healthy root, the filling can be put in immediately. In all cases of filling I apply an antiseptic before inserting the filling material.

In the treatment of putrescent roots, we have the choice of a number of decomposing agents, viz.: Hydrogen peroxide (or diox-

ide), sodium dioxide, sodium and potassium, sulphuric acid, &c. At present I am using Ward's preparation of sodium and potassium, put up in tubes. The point of a broach is dipped into the tube, a small quantity of the preparation being taken up on it. This is carried to the canal, and worked in with a pumping motion. The sodium and potassium acts on the matter contained in the canal, forming a soapy substance, which is easily washed out. The rubber dam must be applied to prevent the preparation coming in contact with living tissue. By this method, the canal is thoroughly cleansed and bleached. Having prepared the canal, we proceed to insert the filling material. Of these there are a number, including gold, amalgam, cement, gutta percha, wood, tin, charcoal, cotton, balsam, and pastes composed of various materials, such as iodoform and eucalyptus, &c., &c. Of these the ones in most general use are gutta percha and cement.

According to Dr. J. Hart (of New York), the essential properties of a root filling are:—

1. It should be capable of completely filling the canal and sealing the apex.
2. It should possess antiseptic properties.
3. It should be capable of easy insertion.
4. It should be durable.
5. It should be pliable and mouldable.
6. It should not expand nor contract.
7. It should not discolour the tooth.
8. It should be impermeable to fluids.
9. It should be easily removable.

In my practice I have used both gutta percha (in the form of points) and cement. With gutta percha you are, doubtless, all familiar, so that I need not dwell upon the method of its use. Various arguments have been used for and against this material, one of those against it being its liability to change shape. One of the strongest used in its favour is its easy removal, should such a necessity occur. To facilitate the insertion of gutta percha, I have used both chloroform and eucalyptus as solvents, though I prefer eucalyptus. In using the cement, e.g., oxychloride of zinc, I mix it quite thin, and work it gently into the canal with a fine smooth broach (or probe) until the canal is filled; then using a little pressure against the whole mass to condense it and make a tight filling.

Other materials might be mentioned, viz., aristol, eugenol, paraffin, paraform, iodoform, compounds, &c.

Cotton as a filling material I do not care for and do not use, being in my opinion unsuitable. As an instance, I quote a case which I treated some time ago. A young gentleman came to me, for treatment of a first upper left bicuspid, which had been filled with amalgam. Symptoms pointed to pericemental trouble in the apical region. On opening up the tooth, I found the pulp chamber filled with cotton, the condition of which I need not describe. Removing this, I found purulent discharge from the canal. The

canal was well washed out and cleansed, and a strong antiseptic sealed in for a few days. After that time trouble had apparently ceased, and there was no discharge. The canal was again washed out, dried, and a paste of iodoform and eucalyptus inserted and carried to the apex, and the canal filled. A gold crown was fitted over the tooth, which has given no further trouble.

Balsam as a root filling I have not used. There is on the market a preparation called "Balsamo del Deserto," and it is claimed that this makes a root filling which hermetically seals the canal and dentinal tubuli, is antiseptic, and impervious to fluids. I have used it successfully in lining cavities prior to inserting an amalgam filling.

I have also used (in canals where it was difficult to insert a broach for any distance, and where portion of dead pulp may have been left, a mummifying paste composed of thymol, powdered alum, zinc oxide and glycerine. So far no trouble has been reported.

Having used several methods and materials, my conclusion regarding treatment and filling of roots is, that it does not so much matter what filling is used, provided the canal is thoroughly cleansed and sterilised, either by mechanical means or by thorough antisepsis. Where the apex cannot be reached, I am careful to completely close the coronal end of the canal.

Gentlemen, I present this short paper for your criticism, hoping it will give rise to a valuable discussion on an important subject.

C. W. HURWORTH, Hon. Secretary.

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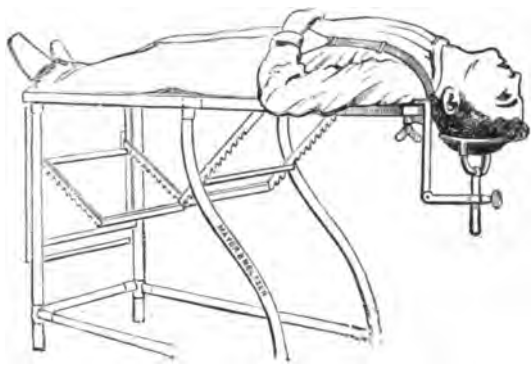

See Issue of this Journal, December 31, 1904, for article on above.

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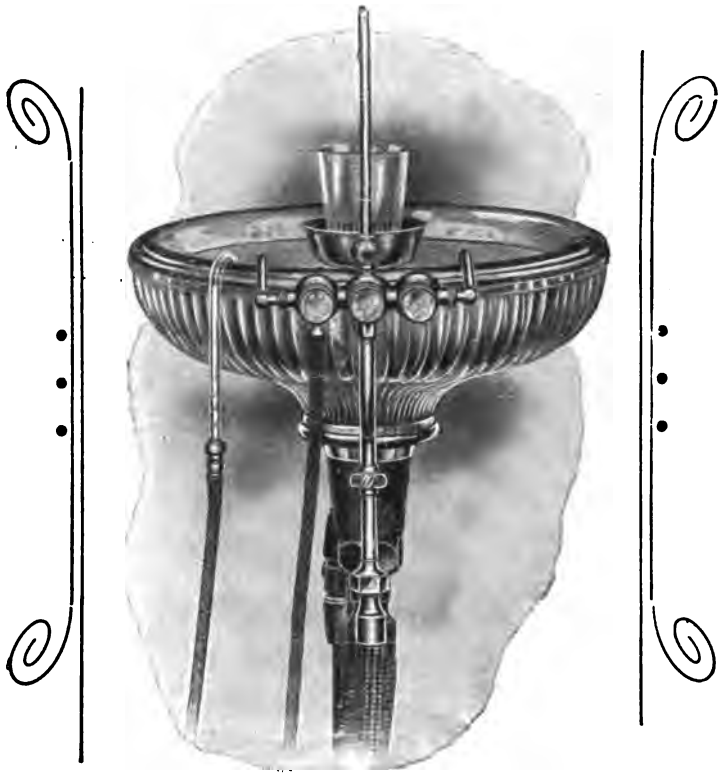

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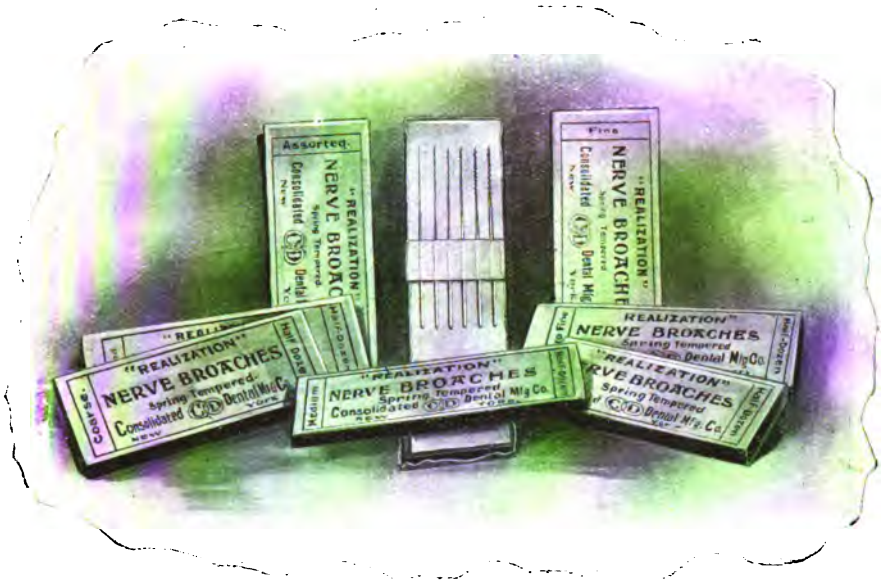

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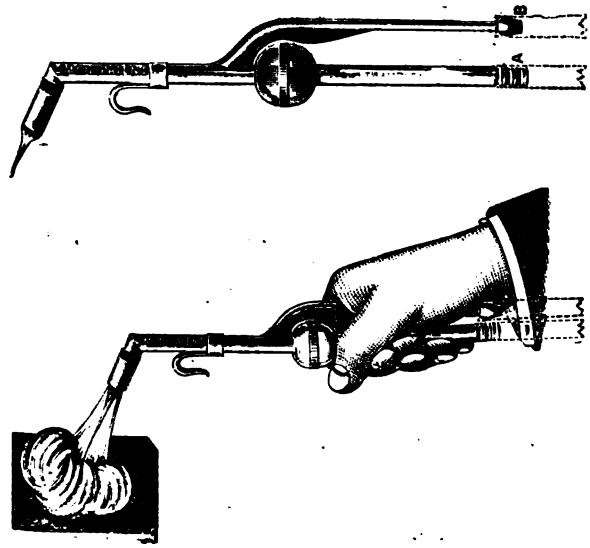

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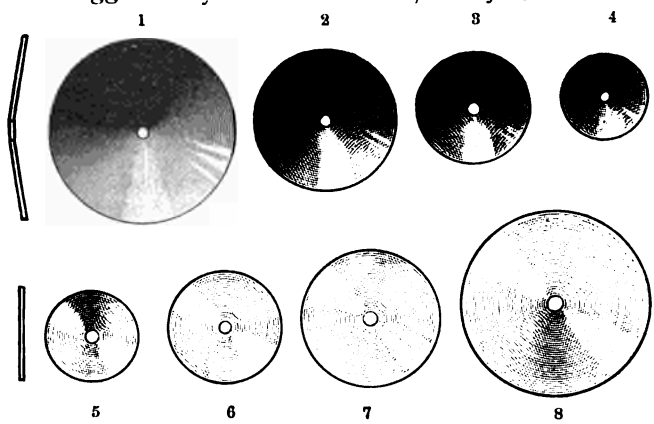

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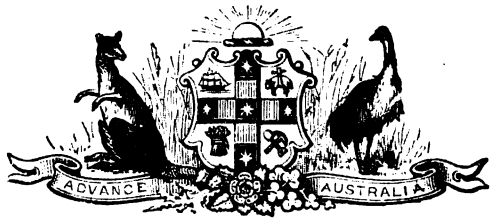

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Dentistry

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] AUGUST 31, 1905. [No. 8.

EDITORIAL.

On another page in the present number will be found an important letter from the Secretary of the Board of Examiners of the Royal College of Surgeons, England, to the Registrar of the Dental Board of Victoria, in which that influential body in dental examination conveys the information of its willingness to recognise for the future the whole curriculum authorised by the Dental Board in affiliation with the University of Melbourne for dental students, or any of its sections, as equivalent to its own requirements for admission to the diploma of Licentiate of Dental Surgery granted by the Royal College of Surgeons. The following proviso is corollary to the recognition:—That where, in any of the subjects gained in Victoria, the standard is not equal to the Board of Examiners' requirements, the applicant will have to make up the additional time in those subjects before presenting himself for the final examination. This timely recognition is a gratifying result of the labours of the Dental Board towards a higher education.

It should also be a satisfaction to all graduates here who may be ambitious enough to attain further educational distinction.

We venture to express the opinion that such recognition forms a very significant illustration of what should be intended in the somewhat Utopian scheme of Universal Dental Federation, or—as the matter more closely touches the newly federated Australian Commonwealth—Inter-State reciprocity among dentists. The consummation of Inter-State Dental Federation no doubt is desirable for many reasons, but its practicability and usefulness demands, not from any narrow-minded point of view, an equal educational standard in every State, and in dentistry fully as much as in any other calling or profession. Let this liberal culture have a widespread influence; it will generate and develop that catholicity and identity of feeling so essential to success, without which the more populated States would form the happy hunting ground of the adventurer and quack more than they do at the present time, whilst a great injustice would be done to the students who are striving to enter their profession in an honourable manner.

The wisdom of the State Parliament is again being appealed to in supporting the Government, by passing the amendments of the law controlling dentistry in Victoria. A meeting of dentists was held at the Vienna Café on August 2nd. It was convened for the purpose of supporting the Amending Bill drafted by the Dental Board, and in urging the Chief Secretary to bring the matter before Parliament. Both the meeting and the deputation were timely and significant. The deputation was the largest and most representative of the profession in the Metropolitan area, and shows how much the action of the Board is appreciated in bringing forward these necessary amendments. The clauses relating to the medical profession are not drafted in any shape or form antagonistic to that body, nor designed to interefere with their vested rights, but it is most desirable to suppress all forms of "covering," a system which is a menace to professional life, and encourages the evasion of the law. We are informed many medical men approve of the action being taken, and would be only too pleased if similar clauses were embodied in the Medical Act. The tendency of these amendments is to safeguard the public as well as the dental profession and its students.

We congratulate our confrères of the Odontological Society of Queensland upon the great success which attended their "Exhibition" or "Annual Meeting," held on August 9th and 10th. Many were present from all parts of the State. The invitations to the adjoining States were not so much availed of, the distance from the other centres taking up so much time in travelling. In addition to the interest of these meetings, dentally speaking, Brisbane is very attractive, for a winter trip from the more southern climates, as well as a base for further excursions. We have heard from one of the visitors how pleased everyone was; the best of good feeling was shown.

We acknowledge with thanks the receipt of the first number of the New Zealand Dental Journal for July through the courtesy of Mr. Herbert P. Rawson, the first President of the New Zealand Dental Association. We congratulate our dental brethren of that important colony on their enterprise and public professional spirit in successfully forming a Dental Association, a matter of some difficulty in a country where centres of population are so wide apart, and whose cities are of almost equal importance. The Constitution and By-Laws have been compiled with befitting carefulness, and should meet with the response so much needed for the well-being of any society; and, while attracting that which is best and held most in regard by the reputable members of the profession, preclude the infiltration of undesirable persons or practices. Provision is also made for forming branch societies, of which there are already twelve in active operation, the recent wave of enthusiasm in dental matters being responsible. The first Conference was held in Wellington in June last, and was very largely attended. We regret reports of this important gathering did not reach us in time for any earlier recognition. We hope this last formed Association and its official organ, the quarterly Journal, will progress with the "whole-hearted enthusiasm" which its managers desire. With them we re-echo Tennyson's words: "We needs must love the highest when we see it"—in a profession which gives men the knowledge and ability to relieve suffering, give health and longevity to mankind, and is a calling worthy our most zealous efforts and our highest aim.

THE DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Dental Board of Victoria was held on Friday evening, 25th August, 1905, at the Board's Offices, 454 Collins Street, Melbourne.

In the unavoidable absence of the President (Dr. Springthorpe), the chair was occupied by Mr. W. Witt, J.P.

There were also present Dr. Mullen, Mr. Iliffe, Dr. A. P. Merrill, D.D.S., and Mr. McGregor.

Registration of Dentists.

The following students, having passed the recent *sine curriculo* examination held in the month of July, and having proved to the satisfaction of the Board that they had complied with the provisions of Section 10 of the Dentists' Act, 1898, were admitted to registration as dentists: —

Ernest James Adam;

Francis Joshua Bennell;

William Norman Binge;

Willian Scott Cranston;

Charles William Mathers.

They were all, in compliance with the rules of the Board, in personal attendance.

Examinations.

The following dates of examination were fixed, and Examiners appointed, viz: —

Histology.—Third year L.D.S., Monday, 4th September, 1905, 2 to 4 p.m. Examiners, Dr. Mullen and Mr. Fielder.

Bacteriology.—Fourth year L.D.S., Wednesday, 13th September, 1.45 to 4.45. Examiners, Dr. Springthorpe and Dr. Bull.

Home Recognition.

The following letter from Mr. Frederic G. Hallett, Secretary to the Royal College of Surgeons, England, was read, and received with great satisfaction: —

ROYAL COLLEGE OF SURGEONS, ENGLAND.

Examination Hall, Victoria Embankment,

London, W.C., 30th June, 1905.

E. Joske, Esq.,

"Dear Sir,—In accordance with my undertaking, I have submitted our correspondence, together with all the documents forwarded by you, to the Board of Examiners in Dental Surgery of

the Royal College of Surgeons of England, and I am happy to inform you that after full consideration of the circumstances, the Board decided to recommend the Council of the Royal College of Surgeons of England to modify their practice so far as to accept the new conditions now established in Melbourne.

"The Council of the College on the 1st of June last adopted the report of the Dental Board, with the result that the courses of study in the general subjects delivered by the Professors of the University of Melbourne, although given especially to dental students, will now be accepted, as complying with the regulations for the License in dental surgery of the College.

"Such being the case, the certificates of attendance on the general courses required for the B.D.S., Victoria, so long as they are given by the Professors of the University in the University buildings, and so long as the present affiliation between the University and the Australian College of Dentistry continues, will be recognised by the Royal College of Surgeons of England; and further, that the special dental courses given in the Australian College of Dentistry will be accepted as fulfilling the requirements of the regulations in regard to those subjects. It must, however, be understood, that where your students attend a shorter course than is required in this country, such course must be supplemented by further attendance, in case of those who wish to obtain our diploma.

"So far as I can see by the documents you have sent me, this additional period would not be more than six months in any case.

"I have to add that the recognition of your courses only takes effect from the date of the affiliation with the University of Melbourne. I am, dear Sir, Yours faithfully,

F. J. HALLETT, Secretary.

CURRICULUM.

A number of matters affecting the curriculum, more especially as regards inter-State students, were referred to the next meeting of the Faculty of Dentistry, on the 30th August.

PROSECUTION.

The Board inquired into the case of a person alleged to be practising dentistry illegally in the country, and having come to the conclusion that a *prima facie* case was made out, directed a prosecution to issue.

CORRESPONDENCE.

A very large amount of correspondence was received and read. Replies having been minuted in every instance, the Board adjourned.

DENTISTS ACT AMENDMENT BILL.

A large meeting of dentists was held at the Vienna Café, Collins Street, Melbourne, on Wednesday, August 2nd, at 8 p.m. The chair was occupied by Mr. A. R. CLARKE, who explained that the object in calling the meeting was to strengthen the position of the Dental Board by urging upon the Chief Secretary (Sir Samuel Gillott) the desirability and great necessity for the Government to speedily bring before Parliament an Amending Dental Bill. The Bill, which had been drafted by the Dental Board, had not been circulated, but sufficient was known of the more important clauses, which were very necessary if the bad practices of many who were carrying on dentistry illegally were to be stopped.

Mr. ILIFFE then briefly and fully explained the various clauses, especially those relating to "covering," the sending all over the country unregistered persons as agents by advertising dentists in Melbourne, and the few cases where, as many of them knew, doctors had lent their names, while the persons carrying on the business were not registered, nor did it seem they ever could be. He moved that this meeting endorses the action of the Dental Board, and promises to do all in its power to get the amendments passed into law.

This was seconded by Mr. R. A. COOPER, and carried unanimously.

The matter was fully discussed, the other speakers being Mr. T. F. W. Hall, Mr. Wilkinson, Mr. Gibbs, Dr. W. E. Davis, D.D.S., Mr. Elvins, Mr. Graham and Mr. Terry.

It was unanimously resolved to form a deputation to wait upon the Chief Secretary at an early date. A committee was then appointed to make all arrangements to suit the Chief Secretary's convenience.

DEPUTATION TO THE CHIEF SECRETARY.

A deputation of members of the dental profession waited on the Chief Secretary on Wednesday, 16th August, 1905, with a view of urging the necessity for passing a Dental Act this session, on the lines suggested by the Dental Board of Victoria. Mr. Boyd, M.P., introduced the deputation.

Mr. BOYD: The principal thing we wish to urge is the regulation of admission to the dental profession, to stop the practice of quackery, which is detrimental to the public. The modern

tendency in all professions is to see that persons are thoroughly qualified for the positions to which they are appointed. And I certainly think that an important profession like dentistry should have at least stringent regulations to prevent quackery.

Sir SAMUEL GILLOT: If your object is to endorse the Bill as submitted by the Dental Board with a view of inducing the Cabinet to make it a Government measure, that is something I understand. I don't say I am in a position to promise straight out that I will be able to comply with such a request. There is another profession affected by the Bill, and I am making enquiries to know the views of the medical profession. Until I hear from them I do not propose to introduce this Bill at all. If you have come in support of that Bill, that is a matter which I can appreciate, and I shall know exactly what weight is given to it by members of the profession.

Mr. BOYD: These gentlemen represent the dental profession, and have left their business to come here to show you how urgently they feel that such a Bill is required.

Mr. CLARK: This very large deputation is absolutely unanimous in their opinion as to the very great necessity for a measure such as has been submitted by the Dental Board. With regard to the two or three points affecting the medical profession, about which you are a little doubtful, I would like to say—speaking for myself, and I think I may say for the rest of the dental profession—that rather than there should be any failure to bring this measure forward, we would let those points go. The matter is one of great urgency. Considerable injustice is being done in many ways; and Victoria is suffering in reputation. We hope you will introduce this Bill at the earliest possible moment, and feel sure if it is put before the House that it will be carried without difficulty. The main object of the Bill is to prevent a class of covering which exists. Medical men register themselves as dentists, and then delegate their rights to those who have no right to practise—to unregistered men, who are not dentists in any shape or form. Medicine is a profession really apart from dentistry, and a medical man is not necessarily a dentist in any shape or form, and not one in one hundred claim to have any special knowledge of dentistry. In the country it is advisable sometimes that a medical man should be allowed to practise dentistry, but that is provided for in the Bill, and it gives rights

to medical men under certain conditions. The honour of the profession is affected, and all that has been done for education in Victoria for dentistry is in danger. We have certainly the best system of education in Australasia, and one of the best in the world. To attain that we have had to ask a great sacrifice of our young men, both in time and money, and it is only fair that when they are admitted to the profession they should be protected against what is unreasonable and unfair.

Mr. ILIFFE: I wish to endorse the remarks made as to the probability of our efforts to get this Bill passed being opposed. We know certain people are trying, as they did when amendments were passed in 1898, to block the way. I have to speak on what is known as "covering." It is very unfair to our young fellows to allow this practice to continue. They have to go through a full course of study, and it is very necessary that they should go through it in its entirety. This calls for a great sacrifice of time and money. I endorse the remarks made by Mr. Clark. Our system of education in dentistry is second to none outside Great Britain. Still, this "covering" goes on, and we are trying to prevent it. There are men in practice in the city who send unqualified people broadcast all over the country to carry on businesses in their names. We have to consider the public as well as the profession, and to protect them from unqualified people. I think this Bill, if introduced into the House, would pass without difficulty. The more time that is lost the worse it is for us. We want to put down this abominable system of "covering" either by medical men or dentists.

Sir SAMUEL GILLOTT: We have something like it in our own profession.

Mr. ILIFFE: We are working on all fours.

Sir SAMUEL GILLOTT: Offices are being established in the country under certain signs and names, but are managed by persons who are not either barristers or solicitors. We complain very bitterly.

Mr. HALL: As a representative of the Odontological Society of Victoria, I hope to see the Bill passed in its entirety. But rather than that there should be any hitch, I personally would like to see the medical clauses dropped. Relatively speaking, they are unimportant.

Mr. COOPER: I wish to draw attention to the injustice to students by unregistered men being allowed to practise, and think in all fairness the Bill should be passed.

Mr. WILKINSON: I understand from your remarks that, with the exception of the medical clauses, you are in favour of the majority of the clauses in this Bill.

Sir SAMUEL GILLOTT: Generally. There is one clause that I wish to call attention to.

Mr. WILKINSON: There is also one clause I wish to draw particular attention to. It is that the Board shall have power to remove the name of any person from the register who is guilty of infamous conduct. I think a similar clause is in the Medical Act.

Sir SAMUEL GILLOTT: No. It is not in the Medical Act.

Mr. WILKINSON: Then I think the way should be led with the Dental Act. I think you will see the wisdom of it. I understand it has been adopted by your own profession.

Mr. JOSKE (the Registrar): This Bill has been framed by the Dental Board after careful consideration, and it is essential in the interests of the public and dentistry that it should be passed into law this session. Anybody at the present time can practise dentistry in Victoria. Our students have a great curriculum to go through, and can only practise after completing a prescribed course and paying certain fees. We find in various towns throughout Victoria that people are practising, and we cannot touch them, because they do not call themselves dentists; yet they gradually build up a great practice, and are doing a great deal of harm to the profession. It is quite impossible for students who have just obtained their diploma to compete with them.

Sir SAMUEL GILLOTT: Doesn't the same thing obtain in the medical profession?

Mr. JOSKE: It is very wrong if it does, and is a great injustice.

Mr. BOYD: The unqualified man breaks more jaws than the professional pugilist.

Mr. JOSKE: We are unanimously of the opinion that the Act cannot be properly carried out unless the practice of unregistered people being allowed to practise is stopped. This Bill professes to deal with that question, and many others. The Board's system of education is the law of the land, and yet it is nullified by practices that cannot be stopped. It is absolutely essential that this Bill should be passed this session. The dental profession hopes you will carry out their views by introducing, without delay,

this amending Bill. We have watched the working of the Act for a number of years, and have tried to bring in under this Bill all that is considered essential. We can assure you, if it is brought before the House, that the dentists will give it their unanimous support in bringing it into law. Some clauses may appear stringent, but they are not so in reality. Already they are the law in other States of the Commonwealth. They have nothing like our system of education in the other States, but they are far ahead of us in legislation. Some of these clauses are taken from the Acts of Western Australia, South Australia, and some from New South Wales. The Dental Board think the profession is entitled to the same protection as is given in other States, and they promise you their unanimous support.

Sir SAMUEL GILLOTT: When I received the deputation from the Council of the Dental Board, I promised them, if I obtained the assent of the medical profession so far as the Bill relates to them, I would be very pleased to introduce the Bill.

Mr. JOSKE: The medical profession are, I am informed, in favour of this Bill, and you will be officially informed in a few days.

Sir SAMUEL GILLOTT: I have had no official intimation yet. If I receive such a notification, I will be pleased to introduce the Bill this session, subject of course to any amendments I think necessary to make. There is one point. You provide that a person can only have his name re-inserted on the register by making representations to the Governor-in-Council. The medical profession desire to give any person the right of appeal to the Supreme Court, and I think that is a very proper thing to have. If a person's name is erased from the register on the grounds of infamous conduct, then there should be a remedy for such a person to go to the Supreme Court if he thinks fit.

Mr. CLARK: I don't think there is any objection to that.

Sir SAMUEL GILLOTT: You think the same provision might be made in this Bill?

Mr. ILIFFE: The power to strike out is the same power as is exercised by the General Medical Council of Great Britain.

Mr. CLARK: We have no objection to that.

Sir SAMUEL GILLOTT: As soon as I hear from the medical profession I will set about giving notice to introduce the Bill this session.

The deputation expressed their thanks, and withdrew.

THE ODONTOLOGICAL SOCIETY OF VICTORIA.

The ordinary monthly meeting was held at the Society's rooms, Austral Buildings, 117 Collins Street, on Tuesday, June 27th, 1905, at 8 p.m.

In the absence of the President and Vice-President, the chair was taken by Mr. S. E. Wills.

The attendance was very limited.

The President sent a letter apologising for his unavoidable absence.

Minutes of the previous meeting were read and confirmed.

An interesting casual communication was received from the President (Mr. T. F. W. Hall), viz.: "The section of an upper maxilla, showing the antrum in position over the second and third molars."

Mr. E. Freeman Greenwood read a paper on "The Composition of Some Dentifrices in Relation to Dental Hygiene."

The paper was listened to with much interest, and a useful discussion followed, in which all present took part.

A hearty vote of thanks was accorded to the essayist, and the meeting adjourned.

ALEC. L. ELVINS, Hon. Sec.

The ordinary monthly meeting of this Society was held in the rooms, Austral Buildings, 117 Collins Street, on Tuesday, July 25th, at 8 p.m. The President, Mr. T. F. W. Hall, occupied the chair.

There was a good attendance.

The subject for the evening was a paper, "Somnoform," by Mr. George E. Payne Philpots. Messrs. Bosch, Bartel very kindly sent to the meeting two inhalers and a bottle of Somnoform, that practical proof might be given of the efficacy of this new anæsthetic.

Members made good use of this opportunity, and several present submitted to the anæsthetic, and interchanged experiences of its psychological and physiological effect.

The thanks of the meeting were passed to Messrs. Bosch, Bartel.

As Mr. Philpots was regrettably unable to be present, the Hon. Secretary read the paper.

"SOMNOFORM.

BY E. G. P. PHILPOTS, COROWA.

The introduction to dental surgery of a new anæsthetic was accomplished a few years ago, when Dr. G. Rolland, of Bordeaux (France) published his method of administering "Soemnoforme," his own discovery, for producing anæsthesia. The term has been Anglicised, and is now commonly known as "Somnoform." It was one thing, however, for that eminent dental scientist to *introduce* his excellent novelty; but quite another to secure its immediate and general adoption over anæsthetics already in favour with our profession, in daily practice. Prejudice and fear had to be fought before it could attain its present position in dental surgery, and I am fully satisfied that we can now exclude chloroform, ether and nitrous oxide from our dental practice, in favour of this drug, every successive administration of which proves it to be so much more desirable than any other for both patient and operator.

It is needless to refer to the dread of chloroform which exists among the general public, in consequence of the lengthy list of fatalities which darken its otherwise brilliant operating track. For example, before almost ceasing to use chloroform in my practice, it was no uncommon thing to hear a patient, to whom its excellent qualities were suggested, exclaim: "Oh, no! I would never dream of taking such a dangerous drug!" or words to that effect.

In fact, during the past fourteen months, I have only used chloroform in three cases; and in each case only at the earnest request of the patient. These three were simple cases, in which the less dangerous nitrous oxide would have admirably served; but as no effort of mine could induce a change of mind in favour of nitrous oxide, the older drug was used. During the same period I have had other really difficult extractions, in which it was desirable to use chloroform; but I could not overcome the patient's dread of the drug, and was in every instance induced to rely upon nitrous oxide, which involved in some cases as many as five and six administrations to remove all the old roots. I also had a series of nasal administrations during the same period, but was handicapped through not having an assistant. Nevertheless, I had successful

results with them, though nothing in comparison with my later achievements with Somnoform.

I had read articles in favour of Somnoform in 1902, but it was not until 1903, when I was in London, and there saw for myself with what pleasing effects and most desirable results Somnoform could be administered in dental surgery, that I became assured of its superiority over every other anæsthetic. Naturally, that assurance impelled me to purchase an apparatus for use in my practice in Australia; but after my return to Melbourne I could scarcely find anybody with a good word to say for Somnoform. I could not get a medical man to fall in line with my views regarding its superiority, until after the appearance of last December number of the *Dental Cosmos*, which, on p. 1052, contained an excellent paper on Dr. Rolland's important discovery of Somnoform. The paper was read at the Fourth International Dental Congress, St. Louis, by Dr. Florestan Aguilar, of Madrid (Spain), who in full, able and concise terms dealt with all the aspects of Somnoform which he—Dr. Aguilar—claimed, was entitled to be termed "One of the most important clinical discoveries of modern times."

I have no doubt that that paper has been read by every member of our profession who regularly takes the *Dental Cosmos*, yet I may be pardoned for expressing the opinion that Dr. Aguilar's paper presents us with a compendium of all the facts regarding Somnoform, which had been demonstrated by laboratory experiments, and by hospital and private practice in England, France and Spain, during the whole period embraced by the years 1901-4.

As I have already here explained, although personally predisposed in favour of the new anæsthetic, yet the wise conservative carefulness of our medical profession appeared to block examinations and tests of its merits, and this caused me to hesitate before adopting its use in my practice. However, Dr. Aguilar's paper so satisfied Dr. W. H. Lang (Corowa) of its safety, superiority and therefore desirableness for cases of brief anæsthesia, and so fully confirmed my own opinions, that Dr. Lang promised to administer Somnoform for me. Our first case was that of a male, aged 30, strong, healthy, alcoholic if anything. Gave him 5c.c., sprayed on cotton cone, 30 seconds inhalation; one minute anæsthesia; 18 extractions.

Patient struggled as the anæsthesia passed off, so gave a second administration, which stopped the struggling and gave time to finish my operation. The struggling was slight, and had nothing in it to prevent the carrying out of my work. I may state here that in subsequent cases I have noticed far less struggling with Somnoform than with nitrous oxide. In fact, out of 124 of my Somnoform patients (my total to date) there were only three of bad struggling, and these were all young men accustomed to hard work and colonial beer, or, perhaps, wine. Women behave much better, and prove really good subjects for Somnoform. They rarely struggle, and in most cases do not move until consciousness returns.

Our second case was that of a younger male, aged 17. Administration, 10c.c., sprayed on cotton cone, using "Ideal Inhaler"; 35 seconds inhalation; extracted 24 stumps. This patient expressed himself as very pleased with the drug, although he had swallowed a little blood, which resulted in a slight vomit. He said he would not mind if a second administration was necessary.

In March last I revisited the Melbourne Dental Hospital, and there had the pleasure of seeing my learned teacher of dental surgery—Dr. W. Orr Gray, L.D.S., D.D.S.— administering Somnoform and with marked success. Dr. Gray used capsules, a decided improvement on the 50c.c. bottles with spray. In the following month I had the further pleasure of perusing the same doctor's excellent paper, entitled "Somnoform Versus Nitrous Oxide," which appeared in the *Australian Journal of Dentistry*, for April 29th, 1905. That paper constitutes in itself a great and authoritative local pronouncement in favour of Somnoform. Nay, the following extracts exactly voice my own convictions:—"After the most careful and critical use of Somnoform, my personal opinion is that it has come to stay; and is far superior to nitrous oxide for many reasons. . . . I have no hesitation in saying that I would never now administer nitrous oxide myself, in preference to Somnoform, in private practice, as I firmly believe we take more risk with the former and do less justice to our patients." I cannot add a word to such high and correct testimony.

In administering Somnoform I have discarded in my last 122 administrations the method used for my first two cases. I used with the "Ideal Inhaler" 3c.c. and 5c.c. capsules, discarding entirely

the cotton cone supplied with the inhaler. I simply smash the small end of the capsule into the air valve of the inhaler, and when the contents of the capsule has passed into the inhaler, I close the air-valve quickly and apply the inhaler to the patient. Before breaking the capsule, I instruct the patient to take very deep breaths and at the same time explaining that the drug may not be pleasant for the first three or four breaths, but that any unpleasant feelings soon pass off. In certain cases I have found it desirable to give air with the earlier breaths. This is easily accomplished by applying the face-piece of the inhaler loosely to the face, and after the third or fourth inhalation adjusting it tightly to the face. But I rarely adopt this method, except in nervous or anæmic cases, because the admission of air, while making Somnoform more pleasant to take, is apt to cause struggling, especially in muscular subjects with whom, if air be given, struggling is really very great. My practical experience with Somnoform, though eminently satisfactory, has taught me to regard it, from one aspect, as a somewhat deceptive drug. This deceptive aspect occurs in the very scantiness of its signs of the production of anæsthesia, as compared with those given out when nitrous oxide is used. Somnoform never fails to produce the necessary and superior anæsthetic condition, but the detection or reading of the signs of that condition by the operating dental surgeon is not always very easy, unless he watches his patient most carefully. Those signs which follow the administration of nitrous oxide are almost entirely absent when Somnoform is used. Heavy stertorous breathing and loss of natural colour are never present with Somnoform, and only in rare cases is there any struggling: while, on the contrary, the respiration continues perfectly natural and regular, and the face only usually flushes to a slight extent. It may be an aid to many dental surgeons who have not as yet tried Somnoform to know the method I have adopted with perfect success in the detection of Somnoformic anæsthesia.

When preparing to administer Somnoform, I hand a stop-watch to my assistant, and instruct him to start it going directly I apply the inhaler to the patient, and to tell me directly the watch shows that fifteen seconds' inhalation has taken place. Having so instructed him, I then charge the inhaler with Somnoform, and, after promptly adjusting the inhaler to the patient's face, I devote

my closest attention to the breathing of the patient, not only to observe that it is regular, but that no swallowing instead of inhaling takes place. When my assistant tells me that fifteen seconds have elapsed, I say to the patient, "Can you hear me?" Usually the patient nods affirmatively. Five or ten seconds later I repeat the question, when the absence of reply constitutes one of my guides to knowing that anæsthesia has been produced, and that if the face-piece be then removed the anæsthesia will deepen, and will allow an operating period lasting for a minute or a minute and a half. This is absolutely my best guide, but I watch also for, in some cases, relaxation of muscles, in others rigidity. When I require a longer period of anæsthesia than usual, I continue administering until a soft snoring ensues. This generally follows administration of from forty-five to sixty seconds, and I know no reason why the production of deep anæsthesia should take longer than a minute. I have had but one experience in contradiction of this assumption, but it was in the case of a young and very alcoholic subject, who at first would not inhale the drug, but holding his breath, kept swallowing it. It took two minutes to put him off, and the case constitutes more an exception than a contradiction.

The necessity, however, for always securing perfect anæsthesia before performing an operation was illustrated in one of my earlier administrations of Somnoform. The patient, a young pharmacy student and personal friend, only required a single extraction, and so I made him the subject of an experiment. I removed the face-piece after administering for only fifteen seconds' inhalation, and made the extraction. The operation was performed without pain, but the too early removal of the inhaler allowed the air to enter the lungs before anæsthesia had been completed, and my friend declared his sensations were horrible—"a mad whirl and whiz."

Although I find that from forty-five to sixty seconds' inhalation allows, as a rule, ample time for lengthy operations, still I have met with one exception, and that, too, where it might have been less expected. The subject was a young lady whose mouth contained a mass of decayed teeth, and from whom thirty-two extractions were necessary. This lady had suffered much from grief and illness. Various near and dear relatives had succumbed to pneumonia within a recent period, and at brief intervals, and she herself had,

but a few months back, recovered from a severe attack of the same dreadful disease. I deemed her one likely to prove supersensitive to anæsthetic influence, and fully expected to clear out the lower jaw in one operation, but she was a full minute inhaling before deep anæsthesia set in, and it lasted barely a minute. Therefore she had to undergo three successive operations, at intervals of about a week between each, and on each occasion she was a full minute before she succumbed to deep anæsthesia, and on only one, the second, did the anæsthesia last over a minute, when it lasted two minutes. This would have been a very bad subject for nitrous oxide.

The effect of Somnoform upon patients varies according to their mental and bodily vitality. Generally speaking, it is very soothing, and not infrequently accompanied by vivid dreams, which are sometimes portrayed as the anæsthesia is passing off.

For instance, one of my earlier male patients suddenly threw his legs high in the air, and delivered the most terrific borborigmi ever heard. Another lay back in the operating chair smiling and flushing happily, while giving other unmistakable evidence that the drug had affected him aphrodisiacally. Another, a muscular young man, gave an exciting exhibition of one struggling against the horse-play of companions. He suddenly contracted his legs, then, shooting them out right and left, very soon would have cleared the surgery if my assistants and self had not held him very firmly. As it was, an iron stand was overturned, and a number of glasses smashed. A most amusing case was that of a teamster who had left his waggon and six horses standing out in the roadway in front, while he came to my surgery to get some teeth extracted. He also was young and powerful. When anæsthesia was passing off, he dreamed (as he afterwards told me) that his horses had bolted up the street with his waggon, and that he was pursuing them when he awoke. A nurse from the hospital was watching my operation at the time, and it had just been successfully performed, when the man yelled, "Whey, Whoa! Wey, Noble! Wey, Lucy! Oh, you——" Aspersions on their legitimacy, adorned with adjectives that might have won the envy of an accomplished bullock-driver were commencing to flow with increasing rapidity, when, with the mental exclamation, "Ladies present, Mr. Boffin," I

clapped my hand over his mouth, receiving for my pains a copious discharge of blood and saliva all over my face, chest, and sleeve. In only very few of these cases could a patient remember a moment afterwards anything of what had occurred, while in each case surprise was expressed by the patient that the operation had been painlessly and successfully performed without his knowledge. Moreover, each expressed his pleasure and satisfaction with Somnoform. An experience well worth citing here was that of a young and nervous man who had persuaded a friend of his to accompany him, and stand by him while getting some extractions made by me. His friend is a teacher of the mandoline, upon which he is an excellent performer, and he had his instrument with him. Thinking music might assist in soothing the nervous patient, I asked the musician to kindly play a selection while I administered Somnoform and operated. My request was complied with, and the whole affair passed off successfully, but with the result that, while the patient had not been aware that he had been operated on, and had not felt the slightest pain throughout, yet he declared he could hear every note that had been played, and simply thought the operation would commence after the air was finished. He looked upon the affair as a charming dream. This case amply demonstrates that, if the patient can be assured that there is nothing to fear, and thus assured takes the anæsthetic with so much confidence as to allow his attention to wander from it to other thoughts or sounds, the very happiest results possible to be derived by the administration of an anæsthetic can be achieved with Somnoform. I trust I may be pardoned for expressing the opinion that it is a dental surgeon's duty to endeavour to always bring his patient to this frame of mind before any administration of Somnoform. At this point the recent (unfortunately public) trouble between the Melbourne Coroner and the Medical Profession obtrudes itself, although I have no desire to refer thereto; but, among much that has appeared in the press regarding that affair, I beg to single out a very timely letter from the pen of Dr. Ray Tovell, D.D.S., N.S.A., which appeared in the *Argus* of July 14th. I refer to that letter here, because it expresses similar sentiments and convictions to those I have here endeavoured to express.

As regards chloroform, it is pleasant to reflect that its days are

almost numbered, so far as dental surgery is concerned. I may remind you, gentlemen, that so far back as 1897, that great authority, Tomes, published in his admirable work, *Dental Surgery*, page 528, the following stringent caution: "But chloroform should never be used in dental operations. Whether it be that the upright position adds a danger when the heart's action is lowered, or whether there be some other cause, it is certain that quite a considerable number quite disproportionate to the number of administrations of patients, have lost their lives under chloroform administered for dental operations. And every few months a fresh case is recorded." Later on, in 1901, Smale and Colyer, in their textbook, *Diseases and Injuries of the Teeth*, said, on page 585, "The regular employment of this agent (chloroform) in dental surgery is to be severely condemned, and the cases are rare indeed in which it seems actually necessary."

In concluding this paper, I beg to point out that when Dr. Aguilar was reading his valuable paper, to which I have referred, Somnoform had already experienced a clean record in over 100,000 successive administrations, of which its discoverer, Dr. Rolland, had administered 25,000; that when Dr. W. Orr-Gray wrote his further instructive paper in favour of Somnoform, in April last, that gentleman had already administered it in over 150 cases at the Melbourne Dental Hospital, and with marked success, too; and that when I now add my testimony of 124 administrations, each succeeding one of which has given me increased respect for its painless and soothing effects and its operating utility, and safety, I cannot help feeling that Somnoform must win, on its own merits, the foremost place in all dental operations of the near future for which anæsthesia may be required.

It is just as safely applied to children as adults. I have found 30 seconds' inhalation of a 3c.c. tube any amount for the average child. My youngest case was a child of seven years, from whom with its aid I extracted painlessly four six-year-old molars. Finally, Mr. President and gentlemen, permit me to express the hope that you may all, very shortly, be experiencing the exquisite ease and satisfaction with which your respective dental surgery can be performed with the aid of Somnoform.

Mr. HALL said: I congratulate Mr. Philpots on his excellent

paper, and trust to have the pleasure of hearing another on some other subject. It covers a wide ground, and is thoroughly practical. My first experience with this form of anæsthesia was just a year ago, at the Royal Dental Hospital, of London, where I saw Dr. Moritz administer chloride of ethyl. He was quite enthusiastic about it, and had given it about 2,000 times with great success. I have used Somnoform in about sixty cases. At first I had vomiting, due to my inexperience and faulty administration. I could not realise the extreme rapidity of the anæsthesia. I have not given up the use of gas, but use Somnoform in what I consider suitable cases. I prefer the 3.c.c. tubes, and use the Ideal Inhaler.

The discussion really became of a conversational nature, as members, save Mr. Hall, admitted no actual experience with the drug in practice, but all were astonished at the rapidity of its action, and the pleasant induction to anæsthesia. A very hearty vote of thanks was accorded to the essayist, and the meeting adjourned.

ALEC. L. ELVINS, Hon. Sec.

COLLEGE NOTES.

The first ordinary monthly meeting of the Council for the year commencing July 1st was held on Thursday, August 10th, when the following office-bearers were unanimously elected, viz.: First Vice-President and Chairman, Mr. F. A. Kernot; Second Vice-President, Mr. T. F. W. Hall, M.A.C.D.; Editor of the *Journal*, Mr. John Iliffe; Executive Committee, Mr. Kernot, Mr. F. A. Down Dr. W. L. Aitken, D.D.S.,; Finance Committee, Mr. R. A. Cooper, Dr. W. E. Davis, D.D.S., Mr. T. F. W. Hall, M.A.C.D., Mr. P. J. Wilkinson, M.A.C.D.; House Committee, Mr. Cooper, Mr. Down, Mr. McGregor, Dr. Aitken and Dr. Davis.

During the recent vacation the opportunity was taken to renovate and repaint the whole of the interior of the Hospital. The various rooms look clean and comfortable, and thoroughly sanitary.

DENTAL STUDENTS' SOCIETY.

The usual monthly meeting was held in the Lecture Hall on the evening of Friday, Aug. 18th. There was only a fair attendance, probably due to the meeting following closely on the vacation.

In the unavoidable absence of the President, and of the two Vice-Presidents, Mr. R. S. Grant occupied the chair.

The Secretary reported as to whether Dental students were eligible for membership of the University Boat Club remained unsettled, but he hoped to be able shortly to say they would be admitted.

The result of the dance, held on June 16th, had been beyond the Committee's expectations; it had realised the handsome profit of £14/10/-.

Resolved unanimously that letters of thanks be sent to Mesdames Cooper and Dillon for their kindness in making the dance such a success. Mr. Percy Clark, M.A.C.D., then read a paper on "Practical Points in Dental Practice."

Mr. Clark said when he promised to read this paper he heartily realised that the subject was such a large one, but he would do his best, and no doubt many of the "points" he would endeavour to give, those present had no doubt heard before.

He described the main points of scaling, applying rubber dam, amalgam, cement, and gold fillings, and also setting crowns. The Chairman moved a hearty vote of thanks to Mr. Clark for his paper, carried unanimously. Mr. Clark thanked the meeting. The Chairman introduced Mr. E. W. Terry, a former student, of the College, and member of the Society, and now Hon. Sec. of the Dental Defence Association. Mr. Terry said that he came down to tell the students that they should do all in their power to get the new Dental Act passed, and suggested if any of them were intimate with members of Parliament, they should point out to such members the harm that was being done to a noble profession by such advertising quacks as exist in these times. The employment of unregistered assistants had grown to such a degree that it was time it was put a stop to, and if this Bill was passed, then the road was paved for graduates to obtain good situations, carrying with them good salaries. Such things are impossible at present.

Mr. Clark, M.A.C.D., endorsed all Mr. Terry had said.

It was decided that a deputation from the Dental Students' Society should interview the Trades Hall Council, and ask them to support the Dental Bill, which probably would come before Parliament this session.

Mr. Terry promised to make arrangements for the introduction of the deputation.

The members had much pleasure in listening to Mr. Terry, and were sorry that more of their old members did not avail themselves of the opportunity to attend these meetings. There were four present at the meeting, but we hope to see an increase in numbers at the next meeting, on Friday, September 15th, when Dr. McCreery will read a paper on "The Action of Nerves in Relation to Disease."

NEW SOUTH WALES.

THE ODONTOLOGICAL SOCIETY OF NEW SOUTH WALES.

"Concerning Fees."

(Read before the Society, July 10, 1905.)

BY MR. ERNEST BLACKWELL.

Some little time ago a patient for whom I have a high regard, but whose family I had never—until a few months previously—attended, said : "I received your accounts, Mr. Blackwell. My own calls for no explanation—it was entirely satisfactory; but I confess I don't quite understand my son's." Thereupon I produced my charts, entered into the essential details of the work, and so thoroughly convinced my friend of the propriety of the fee, that he apologised for ever having questioned it. But, alas, to my chagrin, during the process of analysis, I made the sad discovery that the father's own account, or the one, mark you, that he *did* understand, and considered eminently satisfactory, had been undercharged by the accidental omission of an amount equivalent to more than 20 per cent. of the total. These were nice people, too, and, moreover, they were exceedingly well-off, and certainly never owed anyone a just debt in their lives; but like so many others, when they got into a dentist's chair, they had no idea what was going on in their mouths, much less what had been happening at the hands of the dentist to their children's teeth. And when the work was finished—well, there were a few specks of gold here and there, a few porcelain crowns—which they had probably begun to regard as natural teeth in a particularly good state of preservation; some amalgam fillings—which they held cheaply, and of small account; some root fillings—which they knew nothing about; and an entire absence of toothache, which, doubtless, they took as a matter of course, and in no sense as a result of the operator's skill. What should they know about

the value of the work? Recent arrivals in Sydney, they had never been to a first-class dentist in their lives, and had thus no standard by which to compare the fees that I believed to be reasonable, with the remuneration demanded by the exigencies of the case for high-class work in other surgeries. Obviously, it would have been as easy for them to study the history of Egypt, from the hieroglyphics on Cleopatra's Needle, as to assess the value of my labour from the completed work as it stood in their mouths. The incident, however, struck me in many respects as so typical of the mental attitude of a very large body of patients on receipt of their dentist's account, and I might say of almost all patients upon going for the first time to a practitioner who strains a point to get as much as he can for his patients out of the possibilities of surgical work, that I declined the proffered reimbursement of my loss, owing to the accidental omission in the account, and determined instead to take it out of you, gentlemen, by the infliction of this paper on the subject of "Fees."

Demand and Supply.—Has it occurred to you why, in the nature of things, dentistry should rank amongst the comparatively well remunerated branches of industry? Everything has its market price, and economists tell us that value is determined by the laws of supply and demand. Fortunately for us, less fortunately perhaps for the community generally, the demand for the particular class of service that we are capable of rendering is imminent and universal. Unlike the poet, or the painter, we cannot lament that our art—at least in its more essential and elementary aspects—is beyond the appreciation of the masses. A coal-heaver with an aching tooth finds his way to the nearest dentist as quickly as a baronet, and when there's a *tooth* in the case they're as like as a row of pins, for the Colonel's lady and Judy O'Grady are sisters under their skins. No, there is nothing wrong with the demand; but, touching the supply—the supply of dentists I mean—already the local market is well supplied. Was it last Saturday that I read in the *Commercial Article*, in one of our large dailies, something like this:—

"The stocks in hand are large, and of various qualities. There are some fair sized parcels in University Bond, which it is hoped will prove equal to samples already handled, and further

consignments are expected to arrive before Christmas, from America, where the last season's harvest is rapidly finding its way out of the Elevators of Chicago, San Francisco, Philadelphia, and other important educational centres."

Be that as it may, I have an idea that, as education becomes more diffused, there will be an increasing tendency to crowd into the professions; and though, of course, there will always be room at the top, and the topmost men will probably maintain their fees, the average professional income will suffer reduction, whilst those condemned to wait, even the opportunity of earning a livelihood, will grow more and more numerous. Meanwhile the supply of dentists in any community, however, will necessarily be governed by the qualifications demanded of the practitioners themselves, and the qualifications of a dentist will always be, to say the least of it, exacting.

Factors in the Problem.—As far as I can make out, it is no single attribute, no supreme specialisation that unlocks the door to success in dentistry. Our work is arduous and fatiguing: so is a typewriter's; so is a shopman's; so are a hundred other kinds of work. Think of the responsibility of it, you say. Well, think of the responsibility of a locomotive engine-driver, or a signalman. But then, we require special manipulative skill, so does the working jeweller who mounted the ivory ring that assisted the appearance of your first dentition; so does the mason, who will carve the name on your tombstone. And a special course of study, during which we can earn nothing at all; mechanical and electrical engineers have to reckon with that too, yet none of these men attain a professional status or a professional income.

The explanation lies, I think, in the fact that dentistry necessitates a combination of all these qualities in the same individual. And more, what no amount of technical skill or training can help him to acquire—certain personal characteristics, without which, however capable he might be as an operator, few would care to seek his aid. He must know his business, having mastered that, he must be prepared to wait in comparative idleness an indefinite time for an indefinite reward. He must be agreeable, and gentle, and patient, and conscientious, and that undefinable something, that goes to complete the ego in us all, must be of the

kind that will commend itself to a sufficiently large circle of people, to ensure him a livelihood. In other words, if you would find out whether there is anything in heaven or on earth to keep the supply of dentists in check, you must recall those things that a man has to do in order to become a dentist, and supplement them with those things he has *not* to do in order to become a successful dentist. Especially must you bear in mind the things that are distasteful or difficult, or impossible, to the average youth in search of a livelihood. It may, of course, be the cost of tuition; it may be aversion to an indoor life; it may be the general nature of the work itself; or it may be the risk of getting no work when the curriculum is done with. Finally, although the irrepressible little Jap may some day throw his shadow on the walls of our surgeries, and blot you and me out in its picturesque though chilly outline, we can live on in the sure and certain hope that, unlike so many other good craftsmen, we shall never see our bread and butter swallowed up in the capacious maw of any mere machine. And here I must pause, for further elucidation of this branch of my subject I have to refer you to Mr. Huntly's versatile friend, Algy—you all remember him. He was "awfully good at algebra."

THE IMPROVED STATUS OF THE PROFESSION IN NEW SOUTH WALES.—Recent legislation has not made matters easier for the neophyte in New South Wales. It is safe to assume that the output of dentists here will be smaller during the next ten years than it was during the previous decade, and it would be the merest hypocrisy to maintain that we did not view the prospects with some sense of relief. At the same time, we dare not misinterpret the situation. On the one hand, the trend of enlightened thought is making for the abolition of monopoly and privilege; on the other hand, the pendulum is unquestionably swinging towards synthesis and regulation. Some (the Countess of Warwick and Mr. Watson) predict, however, socialism itself. Be that as it may, concerted effort and combined responsibility are just now the order of the day. And whether it is better for ourselves or not, we believe that it is emphatically better for the public, that so important a branch of hygiene as dentistry should be practised under some measure of control.

Now this control, though it emanated from Parliament, is vested chiefly with ourselves. The public, through its political representatives, has imposed upon us the responsibility of putting our house in order, and if incidentally some privileges accrue to the profession, it rests with us to deflect their resultant good upon the community at large. As isolated individuals, beyond such sense of decorum, as membership of an organisation like this could foster, we lacked the merest essence of a collective conscience. No man was his brothers' keeper, no act of professional charlatanry was too flagrant to pass unnoticed. For the future, we have at least a right to say that men about to join our ranks shall have a decent education, that they shall know their work, before they are let loose to practise on confiding patients, and that in practice they shall not outrage the laws of professional decency. In short, while we cannot guarantee the strength of every link in the chain, we shall, as time goes on, be able to glance down the list of practitioners without a shudder, and we shall be able to shield the public from the daylight robbery of years gone by. In return for this, if the raising of the fence will tend incidentally to the upkeep of the average fee, we can plead, at all events, that the public is getting, on the average, better value for its money. Indeed—and this is really the crux of the whole question—it is *because* the public will be getting better work, that the profession will be earning better fees than could well have continued to be the case under the old regime.

PROFESSIONAL CHARITY.—I may be reminded that by the gratuitous services rendered through the medium of the United Dental Hospital—no doubt a direct consequence of the improved status of the profession—the community has already scored a handsome equivalent. For my own part, however, I am disinclined to take charitable services into account, in dealing with any aspect of the question of fees. Other people support charities besides doctors and dentists. We please ourselves, whether we give our services or not, and where we do, who is to say that we are not, more or iess, according to the nature of our susceptibilities, rewarded by the clinical experience accruing in consequence? Besides, may we not at least claim, on our own behalf, that we find a measure of remuneration

in the satisfaction that comes of now and then giving a hand to those who cannot help themselves?

A More Rational System of Fees.—Turning from the more general aspects of the question, those imposed upon us by the nature of the circumstances, and affecting us collectively, in our relation to the community at large, and regarding that side of it over which we have more direct control, matters affecting the relation between one dentist and another, and the intercourse between our patients and ourselves. I may say at once, that it is not my intention to criticise individual fees, or to propound to you any Utopian scheme by which my income or that of any other man whose practice dates from recent years, can be bumped up by a professional fiat to the level of those gentlemen whose names have been enshrined in public confidence for a much longer period. I want rather to weigh the relative values of different kinds of work, to point out the wisdom of insisting, when discriminating between operations which, though in reality are widely different in value, are too commonly, as the result of pernicious custom, regarded by patients as worthy of equal remuneration; and over and above everything else, I would plead for a systematization of fees, that would tend, at all events, to put the man who did honest work on a better footing than he has occupied in the past, in relation to the one who did less honest work.

One often hears it said that you cannot make men sober by Act of Parliament. Recent events in New South Wales have reminded us that you cannot make them honest either. But though we cannot compel dental practitioners to do the "square thing," I have a notion that it might be possible—with the help of an association like this—to secure the adoption of a method of calculating fees that would, as I say, tend at all events to a more adequate remuneration for skilful and conscientious service, that would achieve this end, by making it to the dentists' obvious disadvantage to perform a series of slipshod and slovenly operations, and that that system, once followed with wholeheartedness by an increasingly large class of practitioners, would gradually come to be regarded by the general run of patients as an established custom, founded in reason and common sense, and not to be lightly questioned. Many of us, I am well aware, in

the secrecy of our own practices, do classify our work as I sugges. Indeed, we could not live and work, as we endeavour to do, unless we did, but we have not hitherto called it from the professional housetops. And the consequence is, that the younger men, carrying high aims with them to the threshold of their careers, are sadly handicapped in their efforts to do what is right.

All I ask of you is this, just to say that the work itself, measured by the skill involved in it, the responsibility that it carries far into the future, and the length of time it takes, should be the beginning and the end, and without exception, the determining factor in all questions of remuneration.

A patient (not one of my own, I assure you,) occasionally asks what I charge for "stuffing" a tooth. I say that it all depends upon the tooth. Well, for an amalgam "stuffing"? Again I say that it still all depends upon the tooth. And if, after five minutes' explanation, I fail to make myself understood, I usher the patient out, with a very light heart, feeling that after all the most suitable kind of "stuffing" for that particular case would be the variety generally made of sage and onions.

Whatever the operation, it should be done as well as it can be done; but, if it was so done, would there be the present disparity in fees for the same classes of work? Would one man be getting £5/5/- where another man is getting £1/1/-? Of course there would be a disparity, I quite admit that. The big man will always get a bigger fee than the little man, It is right that he should. But the little man, imbued with honesty of purpose, would not be handicapped by the unscrupulous practitioner who professed to do the same piece of work for an infinitely smaller fee than anybody at all can possibly do it for, and make it pay.

Cheap Imitations.—Commerce has systemised the purchase of ordinary commodities. If I go to a shop, and demand an article, equal to a sample purchased elsewhere, I shall expect to pay about the same price for it—perhaps a little more, or a little less, according to whether I am served by a duke in a long frock coat, or a commoner in tweeds. Whether it is entered or paid for on the spot, whether they will treat me decently if I change my mind and want them to take it back, and will not behave like the

dentist who told his patient that it was too late to ask for a vulcanite plate, as he had already taken an impression for one on gold. Still, in the ordinary way, we pay about the same price for the same class of article, wherever we buy it, and do not go out on a Saturday night to buy Doulton vases for 1/11¾ each. If they are offered to us at that price, we know they are cheap imitations. An imitation in dentistry is a fraud, and a lie, and to the patient is dear at any price. To restate my proposition: we cannot all get just the same fee for a given class of work, but we can all agree not to make it appear that we can afford to do expensive work for low fees, by actually doing bad work.

A Case in Point.—Here is a lower molar tooth in a mouth, where the teeth are highly packed. You find an occlusial cavity—perhaps not a very large one. The tooth is sensitive, but you follow the line of decay beneath the enamel mesially and distally. You probe deeper and deeper into the dentine. Still the vein of softened and discoloured tissue heads your drill, and you become suspicious. If you leave off now, you have prepared the occlusial cavity that you set out to deal with. You can insert a filling that will appear, even to an expert, a very good filling. You will have earned your fee—your 10/6, let us say—and you will have completely satisfied your patient. But have you satisfied your conscience? How do you know that if you had pushed your inquiries a little further, you would not have finished by sticking the point of your excavator through decalcified spots at each end of the original cavity? And if you had done that, and gone on—as is often necessary where the approximal cavities are large—to connect all three by cutting through the intervening enamel, and then fitting a matrix round the tooth, and had proceeded to insert one large filling, what would be your position then? Your patient will have grown very sick in the operation, and will forget to thank you when she leaves the chair; when she gets home she will thank God, maybe, that all fillings don't take two hours, and next morning, when she views the result in her mirror, she will probably make a grimace at the large amalgam contour—value, as she supposes, for she knows no better—half a guinea. Then, if you have charged her as you ought to have done, not for one filling, but for filling three cavities, her father will, as likely

as not, send your account back, with a note to enquire if it is in future going to cost as much to keep his daughter's teeth in order as it costs to keep her in party frocks. On the other hand, if you have done the work, and not charged for it, you have lost by the transaction, and once more sent the stock of some dishonest competitor up to a premium.

ANOTHER CASE—AN UPPER MOLAR.—Take another case—an upper molar—with a cavity in each of the two occlusial pits, the principal cavity obvious, easy to reach and easy to excavate, the dental cavity hard to reach, hard to drill, and probably extending in the form of incipient decay far down the lingal surface, towards the gum. Cavity No. 1 is the cavity your patient has come to get filled, Cavity No. 2 she knows nothing about as yet. It is open for any of us to fill the former, and wink at the latter, the patient is none the wiser, and she thinks your fee is a very reasonable one, and you have every reason to be equally satisfied; but some day she returns, and with many apologies, asks you if you are quite sure the filling is still intact. You examine it gravely, and quite truthfully affirm that it is as good as ever. You then go on to explain, with such semblance of surprise as you can effect, that there is an entirely new spot on the sun, that the lady is suffering, not through your bad work, but, owing to another cavity having occurred in her bad teeth. She says that is annoying, or, if your patient happened to be a man, he would probably say something else, and she tells you to repair the tissue. Now, wouldn't it have been better for the pair of you if you had discovered the two cavities in the first instance? And filled them both and charged for them both? The fact is, however, that the man who professes to fill teeth at so much per tooth cannot afford to be honest any more than the man on the racecourse, who professes to give you two sovereigns in exchange for one. He will for all time be oblivious to the existence of that second cavity when he fills the first, as Nelson was to his Admiral's signals at the Battle of Copenhagen.

PAYMENT BY THE HOUR.—I have a notion that cases like this do more than point to the desirability for some authoritative utterance from this Society in regard to the general principles that ought to govern the determination of fees. That good ought to be accomplished by such a declaration I feel very certain.

It would not insure the fee in all cases, but it would at least give the young practitioner confidence in applying for it. He would feel that he was doing the approved and customary thing. His patients would cease to think that he was an extortionist, and, in the end, they might realise the justice of his claim, and even come to see that it was done in the interest of good workmanship. None of us, I hope, desire to obtain more than a fair fee for our services. Indeed, we want to give the public as much as we can for their money. But starting with the assumption that whatever is done must be done as well as the practitioner engaged upon it can do it, we end by establishing a bed-rock price, below which anybody pretending to do it is dishonest, and is making a livelihood dependent upon the ignorance and gullibility of the public.

The longer I am in practice, the more convinced I am that the fairest system as between patient and dentist—unquestionably the system most likely to produce the best results—would be to calculate all fees for surgical work on a basis of the time the work has taken. This would effectually solve the difficulty in cases similar to those I have already quoted, and it would ensure due payment for root fillings, where devitalisation was necessary, for dressings and pulp cappings, where devitalisation was contra indicated, and for treatment in the case of putrescent roots.

Good Practice Versus Bad.—But there is another class, not, perhaps, tempting the practitioner to actual dishonesty, but nevertheless calculated to place the more conscientious and skilful man at a disadvantage, and certainly disadvantageous to the patient. I allude to the ever present opportunity of filling only the easy and accessible cavities, of extracting the teeth that it does not pay to fill, and substituting artificial teeth on plates—often quite regardless of the fact that the patient would be much better off without a partial denture.

Good practice, as I understand it, means this—that you will not devitalise if you can save a pulp; that you will not crown a tooth that you can fill, provided that there is a reasonable expectation that the filling will stand; and that you will not extract a root that it is possible to crown; indeed, that you will put yourself out quite considerably, and even take some risk,

if need be, in the building up of roots, in the hope of enabling your patient to get along without a partial denture; that, on the other hand, you will not, where a full upper or lower plate is indicated, except perhaps in the mouths of very old people, leave odd teeth standing here and there to facilitate the collection of small particles of food, and later on, to put their unfortunate owner to the further expense of another denture. All these things are done in our midst, you know it as well as I do, and they are characteristics of bad dentistry that would disappear like a flock of sheep at the approach of an express train, if dentists were only paid for the time they spent in doing good work, instead of, as at present, for the amount of indifferent work they could rush through in the course of the day.

Buying in the Cheapest Market.—As a matter of fact, I have no serious hope of seeing payment by the hour adopted in general practice. The times are out of joint, people are too much imbued with the charm of buying in the cheapest market, more often than not, believing that they are not doing so when in reality they are paying a very high price for their whistle. But, if this Society should take my hint, and some day assume the responsibility of passing a series of resolutions calculated to strengthen the hands of practitioners in their endeavour to base their fees on a more reasonable appreciation of the value of the work performed than appears to be customary at present, I hope they will include the length of time an operation takes, as an important factor in the problem. You will have noticed that I have carefully abstained from hinting that, in my opinion, it is possible to fix a specific fee for any given case; it might be possible to suggest a minimum; but of that I have my doubts—at all events, it is apart from the question. What I plead for is an understanding that if a nerve is killed and a root canal filled, that should be charged at a fee to be determined by the operator himself, as an operation separate and distinct from the crown filling in that tooth; that if the crown of a tooth is filled in two places, each cavity should find an individual place in the account; that the trouble of separating teeth and treating roots, and, of course, of building roots up for crowns, should be paid for at a fair ratio

to the work involved, and that it should be done in order to insure the due fulfilment of the work itself.

It was my intention to have added a few words of suggestion in regard to the treatment of teeth for poor patients, and also to have said something about the rationale of graduated fees for different grades of practices, but I have already overstepped the limits of a modest paper.

Whether I have succeeded in offering any practical suggestions or not, I think you will admit that my plea for the measurement of fees by actual work, and not by nominal results is worthy of consideration. You may call it a day labour system if you like, essentially it is, but there are redeeming elements even in day labour. At all events, it was good enough for those who planned the Pyramids of Egypt and the cathedrals of Europe. I fancy that the Battle of Trafalgar was won on board ships built on the day labour system. I know for a fact that one of the greatest engineering works on the Continent, carried out on the opposite plan, is gradually collapsing, and would inevitably come down with a rush if the defective parts were not renewed from time to time, and all because a rascally contractor found it possible to grease the palm of a Government inspector or two.

And now, gentlemen, I thank you for your patient hearing. (Loud applause.)

The CHAIRMAN: I must congratulate Mr. Blackwell on his paper, and must confess that when I saw the type of paper it was going to be I was wondering what he was going to say about the question of "Fees." Mr. Blackwell seems, so far as I can make out, socialistic in his ideas, that everyone is to be paid the same.

Mr. BLACKWELL: No, all to be paid by time.

The CHAIRMAN: I see, all to be paid for their time, but paying by time, how would you manage, when there are quick workers and slow workers? According to that, you are paying a slow worker really more than a quick worker, and I do not think that would work out satisfactorily. Of course it would for the operator, but for the patient—well, I am afraid they would object to pay a slow worker more than a fast worker. It would be a big item to try and arrange. The whole thing practically depends on the operator. Mr. Blackwell went on to compare buying the

same article at different shops; but whatever the article, it is all manufactured by the one person, which is a very different thing to comparing a man's personal abilities as regards work done. There are lots of points in that paper on which I should like to hear some one else speak.

Mr. HODGSON: It is a question of Socialism and Unionism, of a man being equal. I hold out that no two men are equal in the world. If men were to be paid by time, say, working for seven hours a day, instead of levelling you up, it would level you down, A man who could put in twenty fillings in seven hours would come to a lower level, and get the same pay as the slow one. It is purely a question of Unionism. A bricklayer who could lay 150 bricks a day is paid for the time, not the work, and what is the result? He certainly will not go on laying 150 bricks a day, when a slow worker, who perhaps lays 50 bricks a day, gets paid as much; but he will probably also lay 50 bricks. It would therefore be absurd to make a time scale for every man's effort, as one man might do better work than another; and it is the same way throughout the world. No man can be equal; therefore, no two fees can be fixed the same. Each man should have his fees according to his ability. That, in my mind, is the only thing that calls for criticism in the paper. No doubt, when you can find two men of equal speed, you will have one man doing 100 yards, and getting the same pay as the man who walks 150 yards. Every man has his own ideas, and so in dentistry. One man may work for one hour, and put in as good value of work as another taking two hours, but for all that, he is not going to be paid a double fee. Every one has a separate individuality throughout the world.

Mr. DONALD SMITH: Artists in the beginning charge for their work at low rates; but when their time is so fully occupied that they cannot meet the claims made upon them they of necessity raise their scale of fees. If a man can command any fee he likes, he has a perfect right in doing so, and I think that the time method of charging would be infinitely better than to charge so much per tooth. People come to a dentist and ask him to look into their mouth, and give a quotation at to what it is going to cost to do the work. I take it, that it is very difficult to look

into a mouth, glance at the teeth, and say what the cost is going to be, if a man is honest. If you have not sufficient confidence in a man to trust him to do the work, and charge you a reasonable amount, the best thing is to go out of the door. After all, it is not a question of fees, as one man against another, it is a question of confidence. If a patient comes to you and trusts you with a filling, then if there is any confidence in the patient for the dentist, as well as his ability to stop teeth, everything is all right; but if there is no confidence in the straightforwardness of a dentist, you have gained or lost nothing by losing that patient. People who go about from dentist to dentist are very common in all parts, and they are the bugbears of decent men. I have had telephone messages on more than one occasion asking to know what it would cost to make a set of teeth, also anonymous letters asking for quotations, asking for replies to be addressed to post offices. That sort of thing tends to the lowering of fees, and the degradation of the profession. The medical men charge for attendance, not for work. One man will charge for operation £150, where another will charge £50. They do not charge for the operation so much as for the standing of the practitioner. I think Mr. Blackwell has very properly suggested the idea of whatever professional work a man may do (after all, a professional man's time is his only capital) he should charge for his time. If Socialism is that kind of thing, I am a socialist myself. I know some men, and there are such dentists in this town, who put in an amalgam filling in two seconds, and six or seven in a quarter of an hour, and charge by the filling. I had the pleasure of seeing eight gold fillings in one crown, of a molar, done by some dentist; and that is no exaggeration, because I counted them. That is an indication of some of the things which occur. I heartily endorse the question of fees for attendance, We are expected to do too much in the way of examination, etc., for nothing. A great many of you will bear me out in what I say. There are things which are absolutely non-paying—proper root treatment, and the proper preparation of teeth for filling. Examinations of various descriptions, for which any medical man would charge and receive his consultation fee, we are expected to give these in for nothing. I heartily agree with Mr. Blackwell that as an Associa-

tion, there is no doubt about it, the dental profession is being cheated out of what they are entitled to in the way of consultation fees, by this method of paying so much for a tooth, whether it takes half an hour, a day, or a month. Every man has a certain amount of expense to meet, and he knows every day that certain expenses have to be paid. That man's day is therefore divided up into so many hours, each costing a specific amount. When people come to see us, it is only for their benefit, and whether you have filled a tooth or only looked at it, you, as a professional man, are entitled to a fee. Most of us have had to go through the mill, and I think it is high time we, as a Society, should lay down—not as a resolution, but let it be understood—that every member of this Society ask for his fee for advice. After you have filled a tooth, people go away thinking it is very dear for such a little thing. Your advice is nothing, it is thrown in. We all ought, as professional men, to make people pay for our time and advice. If they are poor, then they are not in a position to do so; but if people can afford it, then they should be made to conform to this rule.

Mr. Hodgson: A man fixes his fees according to his supply and demand as a dentist. I quite agree with Mr. Smith about advice, where you do anything, if you give any advice, you should be paid for it. It has cost you something to obtain that advice, and therefore you are entitled to be paid for it. In every profession you charge higher fees, as you cannot supply the demand made on you. You work the same number of hours in the day, and you get a greater income. Have a minimum fee, and as you are unable to attend to your patients, you increase it, and your patients drop off. Still, it is better to have fewer patients and the same amount in fees, than to have more patients, and only make the same money. I think it is only fair to have to pay what the treatment should cost. I do not mind people asking what the work will cost, and I say I can tell you roughly within about so much of the total, and I do not mind doing so. It is quite a new thing for me to hear that gentlemen in reputable practice are in the habit of charging so much a tooth. I have always understood that fees are regulated at so much a filling. When I first started practice I used to make my accounts read, for work

rendered. Since then I have followed the practice of putting down the items, as so many fillings, generally including in same advice and such like. The treatment of abscesses I consider well worth charging for, and I should like to know whether it is the general practice of members of this Society to charge for treating these, and whether I am doing the usual thing. I must congratulate Mr. Blackwell on his paper. It is very interesting, and will bear a lot of discussion, which in turn will do a great deal of good to both dentists and patients.

Dr. BURNE: At this late hour I do not intend to keep you, but I want to say this, that in the life of a busy practitioner, some dentists go so far as to intimate that a charge will be made in all cases where an appointment is not kept, and I make it a rule to charge for the time, just the same as if I saw the patient. That is, unless I am notified beforehand that such appointment cannot be kept. Then I can make an appointment with some one else for that time.

Mr. WALKER: I think that is rather risky. It would probably develop into the fact that, if you kept your patient waiting,—you know we are all liable to do that, thinking a certain operation will take a certain time, and then finding that we spent longer over it—he would object in his turn to this waiting, and expect it to be made up in some way.

Dr. BURNE: It has been taken to the Courts in America, and the decision given in favour of the dentist.

Mr. WALKER: The dentist would then have to be particular not to keep his patients waiting.

Dr. POCKLEY: A physician told me the other day dentists were to blame for the indiscriminate way in which they gave advice. A medical man is paid for his advice. It is very often said of dentists that they make work in order to get fees, and this is because we do not charge for advice.

The CHAIRMAN: I am afraid I do not agree with Mr. Smith. I think a patient has every right to know what a thing is going to cost. It is only right, and I am only too glad when a patient asks me what his work is going to cost. It saves a lot of trouble afterwards, and you can always leave a margin which it will not exceed. You can always tell somewhere about what work is going to cost, after looking at same. Mr. Blackwell says you ought

not to charge according to the stopping, only according to the time. Mr. Smith quoted an outside case of eight stoppings in one tooth. One person might take a week to do a dressing, where another person would only take two days. It is very hard to say how to charge, and what, either by result, by time, or by stopping. For instance, if you charge by result you charge just the same for an amalgam filling as for a gold one.

Mr. DONALD SMITH: I did not refer specifically to a quotation. Supposing you have a tooth in a very bad state, it is a very difficult matter to give a quotation for this. There is no harm in giving an approximate idea of what a thing is going to cost.

The meeting then closed.

DONALD SMITH, Hon Sec.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The 125th monthly meeting of the Dental Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, August 4th, 1905, at 5.15 p.m.

There were present—Dr. Astles (President), Dr. A. J. Bennett, Mr. F. M. Wilkinson and Mr. A. J. Wright.

The minutes of the previous meeting were read and confirmed.

REGISTRATION.—A communication was received from the Colonial Secretary, stating that the new rule framed by the Board and giving the Board discretionary power had been approved of by the Executive Council. The application of Edward Charles Drake, D.D.S., Pennsylvania University, for registration as a dentist, on being renewed, was granted by the Board.

BREACHES OF ACT.—The Registrar reported particulars of a breach of the Act by an unregistered dentist, and that proceedings had been instituted.

Correspondence was received from the following.—The Commissioner of Police, E. P. Solomon, W. J. Aiken, H. T. Newton, Mrs. D. M. Bates, W. Boxall, L. P. Eskell, A. T. Mills and the Resident Magistrate and the Clerk of Courts Esperance.

RESTORATION OF NAME TO REGISTER.—An application to have his name restored to the Register was received from George Dowling O'Neil, and deferred to the next meeting.

FINANCE.—Statement of receipts and expenditure for twelve months, ending 30th June, duly audited. Bank pass-book and certificate, and the Board's cash-book were laid on the table, and accounts were passed for payment.

FRANCIS M. SYME, Registrar.

QUEENSLAND.

THE DENTAL BOARD OF QUEENSLAND.

The general meeting of the Board was held at the office, 39 Adelaide Street, Brisbane, on Monday, 7th August, 1905.

Present:—Mr. D. R. Eden (the President), Dr. G. H. Hopkins, Mr. E. F. Hughes, Dr. E. T. White, D.D.S., and Mr. H. S. F. Moran.

The minutes of the previous meeting were read by the Registrar and confirmed by the Board.

The Hon. Treasurer reported a satisfactory bank balance.

Accounts were passed for payment.

The outward correspondence dealt with at the last meeting was read, and inward correspondence since was considered and replies drafted.

The Board resolved to call upon a registered dentist to show cause why his name should not be struck off the Register.

The Registrar reported that the first prosecution of an unregistered dentist would take place on August 8th.

Messrs. P. H. Andrews, of Warwick, and J. E. B. McLean, Junr., of Ipswich, were accepted for registration as dentists.

T. B. HUNTER, Registrar.

THE ODONTOLOGICAL SOCIETY OF QUEENSLAND.

The Odontological Society of Queensland held its first annual meeting in the rooms of Dr. Gibson, Queen Street, Brisbane, on Thursday and Friday, 9th and 10th insts. The special committee for this meeting was active in its endeavours to make this meeting of widespread interest, by inviting the country and southern members of the profession. This is perhaps the first effort that has been made to have the Association of practitioners from other States. Although the State of New South Wales was the only one to be represented, expressions of kindly feeling towards the success of this meeting were received from the Odontological Society of Victoria and South Australia.

The meeting was one of decided success, and the committee has benefited by a little experience of this sort. It seems that it would have been more convenient to the Brisbane practitioners to hold such a meeting when there is not such an influx of country visitors. The committee hoped that the visiting practitioners would take a leading part with the papers. All the papers promised from the other cities did not arrive in time, but there was sufficient material to make the session longer if required. In fact, two whole afternoons might have been devoted to the meeting.

About thirty-five practitioners attended the meetings.

The President (Mr. D. R. Eden) at 3.30 opened the meeting by a short address of welcome to the visitors.

After refreshments had been handed round, the first paper was then read, entitled:—

"Management of our Child Patients."

BY MR. STEPHENS, OF MARYBOROUGH.

The fact pressing home upon me that, if all were listeners only, there would be nothing to listen to, and common fairness demands a give as well as a take, kindly accept this as my apology for acceding to the several requests to contribute something for this meeting.

I have no thought of offering anything new, but even old and well-known ideas will sometimes bear repetition and emphasis.

I. THE NEED.—May I first of all offer a plea for the full recognition of our duty to do the very best we can for the little folks who are constantly being brought to us for treatment—and surely that best is to preserve their teeth, even the deciduous ones, wherever possible.

To any thoughtful practitioner the condition of the teeth of the rising generation must provide food for very serious reflection, and I think it will hardly be disputed that there is no phase of our work that demands more serious attention than it.

A case recently coming under my notice leads me to especially speak of this.

A lady, visiting Maryborough from a Northern town, brought her child (a boy of five years) to me, through hearing of other children's teeth being stopped, stating that she could get nothing done for him at home, though repeatedly enquiring about it (the dentists saying that it wasn't worth while trying to save the temporary teeth). I was just able to save three molars, the other five being complete wrecks, beyond repair. Now surely, gentlemen, that is absolutely wrong, and those men who take up that position totally fail to realise their duty and responsibility, and deserve to suffer some of the torturing ills that they thus condemn their unfortunate little would-be patients to.

Take the case of that child. What are the consequences of such criminal neglect? He was constantly suffering agonies of toothache, hardly a tonic to his nervous system; his mouth was a mass of ulcerated sores, foul and filthy; he simply could not masticate his food, and what must the effect upon his digestive organs be with such ill-treatment, to say nothing of the poison being constantly poured into them from the oral cavity? And then, again, remember the habit formed of bolting his food, a habit, perhaps, never to be overcome. Need I tell you he was a weakly, anæmic little mortal? Gentlemen, if such trifles as dental treatment are taken note of on the Judgment Day, some of us will have a warm time.

I know some may argue that parents generally are so neglectful of their children's teeth that they do not care to have anything done for them, and I know that it is sometimes so, unfortunately

the cry—Oh, it is only a first tooth, pull it out—being all too frequent, but that is largely due to ignorance, and is it not one of our most important duties to enlighten our patients, especially parents, on these matters, and I think we will generally find that the majority of parents quickly grasp the facts put before them of the condition of their children's teeth, and appreciate anything that will save the little ones suffering ill-health.

And then it may be said that young children are so difficult to manage, require so much time and patience that, in a busy practice, it is difficult to do satisfactory work for them, and the fees obtainable do not compensate.

Well, they certainly do require time and patience, but, gentlemen, surely our professional spirit should carry us on higher ground than that; and it is not at all true by any means, for, taken rightly, a great many children make capital little patients, and very satisfactory work may be done for them, and, as far as the matter of compensation goes, we must not overlook the fact that by far the great part comes indirectly in the way of grateful appreciation, which spells more work in the future, the habit of caring for the teeth being formed, as well as recommendation in other directions.

II.—METHODS.—Having said so much on the need of saving the teeth, we may consider briefly some of the methods by which the most satisfactory results may be accomplished, and which, I think, are mainly dependent on a proper management of the little people.

To get on at all satisfactorily with a child patient, there is one thing to be gained above all others, and that is the *confidence of the child*. Without this it is a trouble and vexation of spirit all the way along, and it is worth a good deal to obtain, and which, having once obtained it, requires great pains to retain. It is a talisman that will carry us over many difficulties, and will be a strong ally in the contest with our arch-enemy—dental caries.

To obtain this confidence there are certain essentials that are worth paying considerable attention to. First impressions go a long way, so that one needs to start at the very first interview to get on the right side of the young patient. While each child offers a separate individuality, and must be treated accordingly, there are certain principles that may be laid down as being of the first importance in every case.

I think one of the first things demanded of us is to be perfectly candid and honest with regard to any operations that may have to be performed. One is frequently tempted to practise little deceptions, especially by parents, who mean well, but who have very little judgment. And this is especially so in the matter of extractions. How often do we have instances of children being brought in to be relieved of an aching member by a parent, who loudly assures the child that "the gentleman isn't going to pull it, he only wants to look at it," at the same time telling you to take it without letting on? Is there any way we could more thoroughly outrage the feelings of a child, or more effectually raise a barrier between us and them? I think our experiences will tally, that the most difficult patients we could possibly have are such as have been treated in that way. Fear and suspicion give them a perfect horror of the name of dentist, and it requires great patience and perseverance to break down that suspicion.

It is a thousand times better to be perfectly candid with the patient, and one of the best things to do is to get the parent out of the room; as a rule, you can manage much better without them. Then if, as is so often the case, the child is terrified, calm them down a little, and then quietly and candidly tell them the tooth must come out, but that if they will sit quietly you will be as gentle as possible, but that if they struggle and fight, you will only have to use force, and they will suffer much more pain. Such treatment will generally work wonders, and, though they may suffer considerably, they will go away with friendly respect and come again next time with far less fear. But that refers more to older children, who can understand reason.

There is another class of very little ones, that do not give you that opportunity to make friends, rather the other way. I refer to those not infrequent cases, where a little mite comes trotting in, all smiles for the kind man who is going to cure the nasty toothache, is delighted with the wonderful chair and other interesting things, and sits back with open mouth like a lamb going to the slaughter—and then comes the rude awakening. Gentlemen, I don't know how you feel in such cases, but if ever there's a time when I feel a villain, it is when I have to destroy

such a child's confidence, and open its eyes to the cruelties lurking in innocent-looking places. But frequently it has to be gone through, and "sadly we think of the morrow," in this instance when the child next requires dental treatment.

I may remark here, incidentally, that I haven't found local anæsthetics, or, with very young children, even gas, of much assistance, for the fear and nervous strain is worse than the actual pain. My experience is, that to make as little fuss, and get the tooth out as quickly as possible is the least trying for the child. And then I would put the *need of infinite patience* on the part of the dentist for this work, and I would write it large as being absolutely necessary. A man without it may jolt along with mere grown-ups, but never with children. He'd much better leave them severely alone. We can sometimes let off steam and bluster round with the former, but with the latter it only spells disaster every time.

When a tot of three summers requiring some fillings is seated on the chair for perhaps the third or fourth time, only to immediately set up a howl, there is nothing for it but to smile sweetly, put in a dressing, and try again some other day, and the same when, exhausting all your ingenuity to keep a tooth dry to insert a filling, a sudden gulp or wriggle floods the saliva all over and defeats your best efforts, getting mad will only make it ten times worse. The rule of our childhood, "If at first you don't succeed, try, try, try again," is an excellent one in this connection.

And if we are always patient we will be also *gentle*, both in manner and touch, and this I also think of the utmost importance. We must be like Byron's Don Juan: "The mildest mannered man that ever scuttled ship or cut a throat." By gentleness I do not mean softness by any means, firmness and gentleness may very well go together if necessary. There are some children who need a good deal of bossing, but roughness in any shape or degree should never come near a child. Their fine susceptibilities and tender feelings are more easily jarred than a grown-up person, and the slightest roughness will strain their confidence as much as anything. And a little sympathy, gentlemen, goes a long way with most little ones (and big ones, too, for that matter), and we can very

well extend a little to them. Poor little mites, it is rough on them to have to go through the trying experiences that some have to: they cannot understand the reason why, or appreciate the benefits at the time, and to feel that they are in sympathetic hands will go a long way to calm their fears and enable them better to bear the pain.

Another matter I might mention that is very helpful in dealing with these little ladies and gentlemen, is to draw them out to take an intelligent interest in the work that is going on. A little explanation of the why or wherefore of things, encouraging them to ask questions, etc., will not interfere with us much in our work, and will help considerably to educate them in a simple way, as well as draw their thoughts away from the unpleasant part—a drop of mercury in their hands when mixing the amalgam gives endless delight, and in many little ways we can so surround our work with interest to them, as to outweigh the painfulness of it.

These may seem, in one sense, to be small matters, but in others they are by no means so, for it is possible by such means as I have mentioned, to so eliminate the dread of a visit to the dentist, that it shall be looked forward to quite as a pleasure, and that makes all the difference between pleasant, comfortable operating and just the reverse.

I have not attempted to go into the details of treatment, but in concluding would say that my experience agrees with many others, that copper amalgam is par excellence the filling material for the deciduous teeth.

Mr. C. A. Hall (Sydney) endorsed the remarks of Mr. Stephens, and expressed the opinion that he had struck the keynote in dealing with children when he summed it all up in "infinite pains."

Mr. Parker said he had listened with great interest to the paper, which would give rise to much thought among them. Referring to the six year old molar, he had found that a mistake was often made by parents in thinking this was one of the first teeth, instead of the first of the permanent teeth, and on this account the tooth was often taken out. He had found in his experience that defective teeth in children were often associated with enlarged tonsils

and adenoid growths, and he suggested the removal of both at one time.

Dr. BURNE (Sydney) expressed his pleasure at hearing the paper. If there was one thing more than another in the practice of dentistry that demanded patience, it was dealing with the teeth of children. He asked why oxyphosphate of copper (Ame's) in the treatment of teeth had been left out, and said it was one of the finest things they could use.

Mr. EDEN also expressed his pleasure at listening to Mr. Stephens' paper. As regards the sixth year molar, he had found it advantageous in his practice to tell the parents how they should know this tooth. Starting from the centre of the mouth of the child, if the parent counted until there were six teeth, the sixth tooth was sure to be a permanent one. He also endorsed Dr. Burne's remark concerning the use of oxyphosphate of copper.

Mr. STEPHENS, in reply, expressed his pleasure in finding that he had struck a note which had appealed to them all, as he was afraid he had been dealing only with platitudes. As regards the sixth year molar, mistakes were often made, and on one occasion even a medical man had advised that a sixth year molar should not be stopped, because, he said, the patient would soon be losing it. He evidently did not know what he was talking about.

Mr. W. G. HENDERSON then read a paper on:—

"HYGIENIC DENTAL PRACTICE."

My principal motive in reading this short paper is not to pose as a learned follower in every detail of the title of this paper, but to encourage "aseptic treatment," not particularly in the mouth only, but to suggest that, although the majority of dentists carry out fair aseptic treatment, when operating in the mouth, the same practitioners in many instances do not give the same care to their rooms and surroundings in a hygienic sense. To particularise:—Many dentists have their operating room carpeted, which is made the receptacle, during the year—for some hours, at least, every day—of infected pellets of cotton, more or less charged with microbes, pieces of tartar, etc., which fall to the floor, and, to a certain extent, contaminate the floor covering, with possible danger

of infection to the dentist himself. Of course, some will remark, "Why have that description of floor covering?" But most of us conform, at least to a certain extent, to social usages, which seem to demand that the floor is only fittingly furnished when carpeted; but the suggestion to sweep the said covering at least twice a week with a weak solution of formalin, is, to my mind, the correct one. The more so, as that treatment leaves little or no odour behind. Then there is the "gas face-piece." How many give it attention, other than to see that it works properly, and that there is no blood adhering there. Again the intelligent use of formalin is suggested. To many patients, there is something repugnant in the knowledge that the same rubber appliance has been used many times in the day. Just think of the condition of many patients who have "gas" administered—they possibly suffering from all diseases, from tuberculosis to common toothache. Are we doing our best for the public in that respect? Then, in the matter of forceps. Are we, as dentists, sufficiently careful to have them aseptic. Many dentists, I know, simply wipe them with a damp sponge, contending that the bleeding immediately after extraction is a sure preventive of infection. Take a typical case of extraction, say, of a lower tooth, possibly surrounded by tartar (the home of microbic infection). The forceps are placed in close contact with neck of stump or tooth, as the case may be, and pressed down. It stands to reason that there is great danger of anti-infection, particularly in lower jaw. In the upper jaw, gravity greatly assists to get rid of any infection, and in addition to that, the upper jaw has greater recuperative power. I have sometimes thought, that those sockets, which suppurate and give considerable pain after extraction, may arise from the above cause. How much safer would it be were we to swab around the tooth to be extracted some antiseptic? One thing has often struck me, and that was, that the extraction of a tooth was the only operation performed on the human body that did not generally receive any attention immediately afterwards. Some one may say: "I have extracted thousands of teeth, which did not require any attention afterwards," but that is only because the public have become accustomed to look on as normal the pain and trouble in many cases experienced after extraction. It would be better if we swabbed the socket with some drug, that will allay pain and

promote healing, such as tincture of calendula, or phenol sodique. In this connection, it is necessary to say that no dentist should be without a good, compact, steriliser. Sponges also require attention, as the physical condition of a sponge renders it particularly liable to be foul, and to that extent unsafe.

We will agree that the almost universal use of plaster for taking impressions has, no doubt, got rid of one complaint in the matter of cleanliness. Personally, it would take a good deal of persuasion to allow the impression of my mouth to be taken with a material that might have been in the mouths of half a dozen more or less uncleanly individuals. While on this subject, I must draw attention to an innovation which, to my mind is a commendable one. One of the English Dental Hospitals has a room fitted up for those patients whose mouthe require treatment, but were in such an uncleanly condition as to render proper treatment difficult and unsatisfactory. Those patients were sent into this room, and were supplied with coarse cane brush, plenty of running water, and some disinfectant (all this before the treatment of the mouth began). I was pleased to see this step taken first in England, because we have been led to believe, to a certain extent at least, that America led the way in everything pertaining to dentistry. However, I have no wish to draw comparisons between the two countries in this respect, but to assert that many of our operations in the mouth are futile, from our inability to get the mouth in a clean state before operating. How often have we to clean the disagreeable debris from around the tooth requiring treatment. It wants some hardy dentist to arise and insist on such patients there and then spending a few minutes with tooth brush. There is one other little matter that we should avoid, and that is, handling current coin in the pockets, or receiving it from clients, and then attending to patients without washing the hands.

I will now touch upon specific aseptic treatment in filling. One must have been struck, after extracting say an upper molar, to find in one root the signs of an abscess forming or abscesses sac, showing that root at least to be infected. Supposing we attempt to fill that tooth, and say the sac to be on lingual root, and with broach and dressings we proceed to prepare it, and then give attention to the other root, using same broach or nerve extractor. It stands

to reason there is great danger of spreading the trouble and infecting the other roots. One remedy is to have a broach for each root canal, when suspicious of any such trouble in tooth. It is better to finish one root at a time and put small pellets of wool up canal to prevent debris from other canals entering. It is somewhat unfortunate that to afford perfect sterilisation of nerve extractors or broaches, is the practice of passing them through the flame, which renders them liable to break in canals; when this occurs, one has much trouble in thoroughly removing. It has been asserted that excavators are a source of infection, but I do not think so, as it is only when the excavators wound the gum that there may be any danger of infection. Of course, they should be absolutely clean, but there is not the same necessity that they should be sterilised as carefully as, say "scalers" (which undoubtedly, if not aseptic before using, can be made a positive danger), as they come in intimate contact with alveolar margin, and to some extent inflicting wounds. For the above reasons it might be better to thoroughly scale one tooth at a time, and immerse scaler in antiseptic, before proceeding with next tooth. Clamps, in proportion to their size, are a source of danger, as being such small articles, the necessity of absolute cleanliness is not recognised. Regarding burs, care is required that they do not slip and puncture the gum, as it is well known that a punctured wound is more dangerous than an incised one. A bur having punctured the gum, it is always safe by slight incision, to make a punctured wound an incised one, which can the more readily be dressed. In addition to that, the further bleeding is an advantage. As not particularly relating to the daily practice of the dentist, we have not heard of a good cleanser for our patients' tooth-brushes. I have not seen in any dental journal any reliable guide as to the care of the brush. In this respect, formalin as an antiseptic is not safe, as the weak solution of such in the household would be highly dangerous to the children, owing to the similarity of its appearance to water. Gentlemen, if this somewhat disjointed paper contains only one good suggestion for the proper conduct of our profession, in a scientific sense, I shall be content. In one sense, I shall be more so, if it be freely criticised, as it is only in that way that we can make any progress in our chosen profession.

Dr. RENDLE said he quite agreed with Mr. Henderson as to keeping the surgery clean. The carpet question was a very important one. Carpet was very objectionable in a surgery. As regards the use of formalin, Mr. Henderson did not tell them much as to technical methods to be adopted. He pointed out, also, that in outside districts formalin was not obtainable. The method he (Dr. Rendle) used was a simple one. He inserted all instruments in boiling water with washing soda. But all blood must first be removed, as otherwise the heat would coagulate it. By this method, all instruments came out bright and clean. They were left in the hot solution a few minutes, and then taken out and wiped while hot. This method prevented rust, and the heat caused the instruments to dry quickly. He had not found that the heat of boiling water injured the temper of the steel in any way. Before making extractions, it was most important that the mouth should be made as aseptic as possible, and, as patients were sometimes very touchy on this point, he had sometimes overcome the difficulty by telling them that the gums would heal better after the extraction, if they washd the mouth out with an antiseptic solution he gave them. In his practice he always made his patients cleanse the mouth thoroughly before he did the slightest operation on tooth or gum. It made the operation much more pleasant for the operator. As regards sponges, it was better never to use them. Sponges could not possibly be cleansed except by a complicated process. He would recommend the use of cotton swabs. He quite agreed with Mr. Henderson as to the use of plaster for impressions in preference to wax.

Dr. BURNE said he was very pleased with the paper, although he did not altogether agree with the methods. If Mr. Henderson started to go over his carpets with formalin solution of such a strength as to be of service, he would soon give the job over to someone else. He (Dr. Burne) would advocate, in preference, that the room be disinfected once a week with the formalin spray and spirit lamp. For the disinfection of instruments, he recommended the saturation of borax water plus twenty per cent. of formalin. He placed all his burs, etc., into a jar of that solution, and he had taken them out as bright and clean, even after they had been in the solution for a month, as when they went in. One

of the speakers had referred to sensitive patients, but he could tell them that he had no hesitation in telling a man so if his mouth was reeking with filth. He would tell a lady so too, but in that case he might put it in French.

Dr. HURWORTH called attention to a rubber mat for use round the operating chair. This could be easily scrubbed, and it was clean and durable. He thought that the rubber mat was quite a desirable addition to any surgery. As to sponges, he had given them up altogether, and he agreed with Dr. Rendle that cotton swabs which were thrown away immediately after use were the best. About coins, he did not know that so much could be said about them in connection with infection as might be thought. Research had been made as to whether coins really carried infection to the extent that was stated, and to his surprise that the amount of infection was said to be very small. In the case of copper gold coins, there was formed an oxide (?) that seemed to dest o/ bacteria, and he could quite understand there was a reason for the chemical action going on. With regard to nerve extractors, he had them boiled immediately after use, and prior to using th m again he used the solution mentioned by Dr. Burne. Forceps and excavators, he also put through the sterilser. He quite approved of endeavours to make the mouth aseptic before undertaking any serious operation, but he doubted whether it could be made truly aseptic: still, it was as well to do the best they could. He found that in the hospitals in America which he attended, it was customary for surgeons before attempting any serious operations in the mouth, such as the removal of the tongue, or a tumour, to send the patient to the dental department and have his mouth made as clean as possible, such as by the removal of salivary calculi deposits, treatment of carious teeth, especially if these were abscessed. He considered that the surgeon who sought the aid of the dentist in this way had an advantage over the surgeon who relied merely on an antiseptic mouth wash.

Mr. PARKER quite agreed with Dr. Burne as to carpets. With regard to sterilising instruments, etc., he did not think there was any danger, unless there was a slip or exposure. As to coin being a means of infection, he did not think there was much in it. Of course, if coin came from an infected place, it would be a different matter.

Mr. HALL (Sydney) stated that as the result of a bur slipping an abscess had occurred to himself, and he had had to have it cut out. That was a practical illustration.

Mr. HENDERSON, in reply, touched upon the carpet question, stating that he was in favour of no carpet at all, though he must plead guilty to having one.

THE NEW YORK INSTITUTE OF STOMATOLOGY.

President, Dr. C. O. Kimball, 27 W. 38th St., New York City, N.Y.; Corresponding Secretary, Dr. James Buckley Locherty, 63 W. 45th Street, New York City, N.Y.

OFFER OF PRIZES.

With the desire of stimulating investigation in any field of activity directly relating to Dental or Oral Science, the New York Institute of Stomatology offers two prizes for the best papers submitted to it embodying the results of such original research.

The first prize for the best paper will be a gold medal and £50. The second prize for the next best paper, a gold medal and £20.

CONDITIONS.

a. The papers offered for competition must be typewritten in English.

b. Must contain not less than 1,500 nor more than 3,500 words.

c. Must be signed by a motto or *nom de plume.*

d. Must be accompanied by a sealed envelope marked with the same motto or *nom de plume* on the outside, containing the true name as well as the motto of the contestant within.

e. Must be sent to the chairman of the Executive Committee, Dr. F. Milton Smith, 38 West 36th St., on or before March 1, 1906.

JUDGES.

The following gentlemen have consented to act as judges:—

Dr. C. N. Johnson, of Chicago, Editor of *Dental Review.*

Dr. Eugene H. Smith, of Boston, Dean of Harvard University Dental School.

Dr. Wilbur F. Litch, of Philadelphia, Editor of *Dental Brief.*

Under the following

RULES.

1. The papers will be sent to the judges without the sealed envelopes, containing the names of the contestants, which will be retained by the Executive Committee till the decision of the judges is made.

2. In deciding on the merits of papers offered in competition, the judges will be requested to take into consideration the value and character of the research work, the results of which are presented, more than the literary character of the essays, but to give the latter due credit.

3. The judges are expressly authorised to decide which if any of the papers submitted to them are of sufficient merit to entitle them to the prizes offered, or to withhold the award from all the papers if none are deemed worthy.

4. Authors of the prize papers will be invited to read their essays before a meeting of the Institute, as will the writers of other papers of especial merit, the Institute reserving the right to the first publication of all papers offered in competition.

Papers not used will be promptly returned to the writers. Those read before the Institute will be as fully discussed as possible, and when published will be adequately illustrated.

For further information address Dr. F. Milton Smith, 38 West 36th Street, New York, N.Y.

NEW PUBLICATIONS RECEIVED.

During the month we have received the following:—

The New Zealand Dental Journal, Vol I., No. 1, July 1905. Edited by Wm. Ernest Lowe, L.D.S. Eng., D.D.S. Pa. Published by the Executive of the New Zealand Dental Association, Wellington, N.Z., with the object primarily of bringing into closer touch those dentists who cannot find it convenient from a business point of view to take part in the annual conference of the Association, which is to be continued from year to year, as well as for the mutual benefit of the individual practitioner in N.Z. The current number contains a full report of the inaugural conference held in Wellington in June last. The aspirations and objects of both conference and journal are much to be commended, and it is to be hoped that the well-begun stimulation into life of that *esprit de corps* which has hitherto been non-existent among the dental practitioners of that colony, will strengthen by individual effort the well-being of the profession, as well as being for the benefit of the public.

The Dental Annual and Directory. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden, W. The third year of publication of this book of reference is, in some respects, an improvement on former editions, but was delivered in Australia too late in the year to be of much practical service. We suggest that the reference to "The Position of Dentistry in Australia," could have been brought more up-to-date, had the pages of this journal been referred to. The excerpt, excellent as it is, by Mr. George Thomson, L.D.S., reads almost like ancient his-

tory, so far as the State of Victoria is concerned, as, since that gentleman left these shores much more progress has been made in the development of dental education, and in raising the standard to affiliation with the University. We may remark, by the way, Mr. Thomson was the first Secretary of the Odontological Society of Victoria, which was founded in 1884, and not Secretary of the Dental Board, first appointed by the Government in 1888, of which body he was one of the first members.

The Diseases of Men and Women, by DR. JOHN MARTIN, M.D. EDIN., published by R. E. Ambler, 93 Clarence Street, Sydney, is a handbook for general use, to meet the wants of the public. The space devoted to dental troubles is exceedingly small, and of little interest to dentists.

PRETENDED PRACTITIONER.

HOW DIPLOMAS ARE BOUGHT.

At the Criminal Court, Adelaide, S.A., on Friday night, Hermann Lemang was convicted of the larceny of furniture as a bailee. Prisoner said he held a medical practitioner's diploma from the Berlin University, and had studied dentistry at the Halle University, Germany. The Crown solicitor produced a copy of the "Albury Daily News," containing a veterinary advertisement in the name of Dr. Lehmann. Prisoner admitted having inserted it, and having assumed that name while living in Albury.

Mr. Justice Homburg (to prisoner).—Do you hold a veterinary diploma?—No.

Prisoner admitted that he was known as Lehmann in Halle.

Mr. Justice Homburg.—Would the Berlin University grant you a diploma under a false name?—I don't know.

Are you a graduate of a German University?—No.

How did you obtain the diplomas?—I purchased them. Many men do that. Agents in America, England and Germany advertise diplomas for sale, and people buy them.

The Crown Solicitor.—Was it through the German consul discovering the diplomas to be fraudulent that the Adelaide Medical Board would not admit you?—The Board said nothing.

The Crown Solicitor.—The Board spoke rather eloquently if it said nothing.

On Saturday the Crown laid an information against Lemang for the alleged forgery of the signature of Joann Moser, prosecutor in the previous case, to a document purporting to indemnify Lemang against any damages regarding the sale of the furniture. Lemang pleaded not guilty, and the case was made a remanet for next sessions.—*The Argus, Monday, Augt.* 7, 1905.

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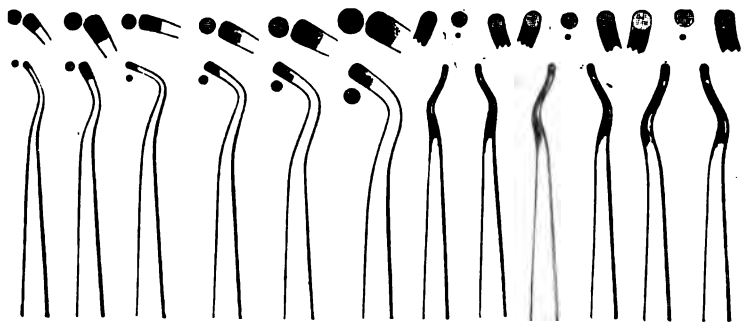

M., M. & J. have decided to sell their own make of Tooth Forceps at 7/6 nett for Ordinary, and 8/6 for Hawkbill Forceps; special patterns a little more; this is less than the ordinary Sheffield made Tooth Forceps are sold at in Melbourne.

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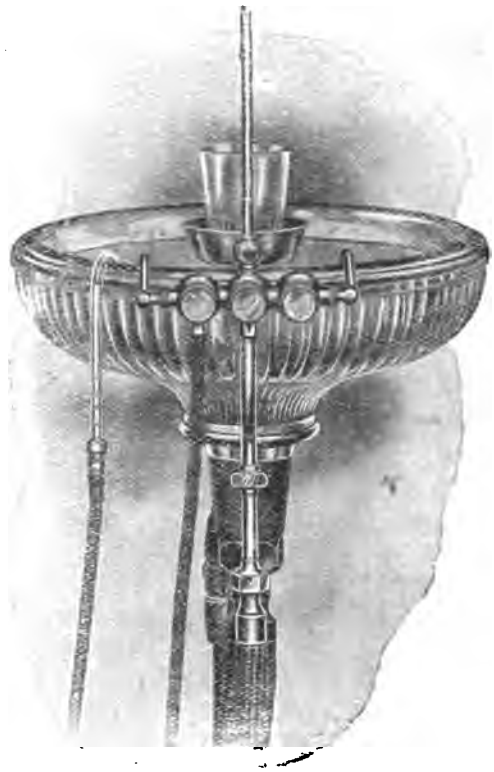

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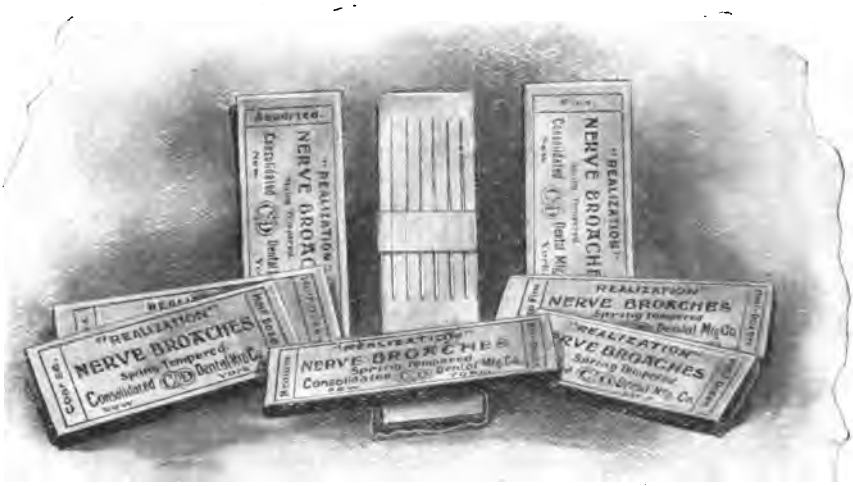

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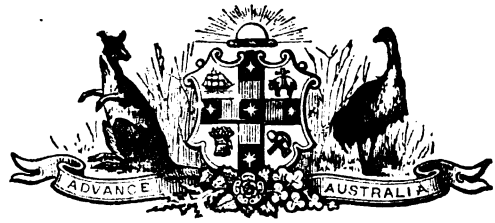

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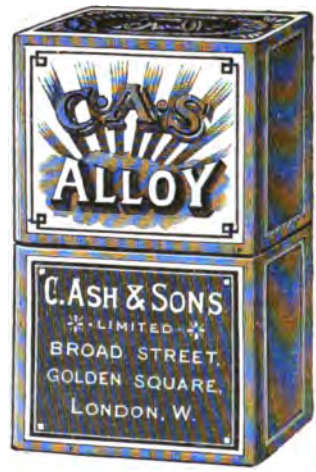

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] SEPTEMBER 30, 1905. [No. 9.

EDITORIAL.

The comments on "The Australian as a Student" recently made by a leader of thought and learning, and whose lengthened experience also as a University teacher enables him to speak freely and with authority on the subject, give the Australian students generally a fairly good opinion of their capacity for work. In correlation with students of some of the older seats of learning, they come very well out of the comparison. From the nature of their circumstances, in some instances they work harder, they are essentially practical, taking up their studies with a well-defined object in view.

In the case of the dental students, their work is more essentially practical; they work to pass the examinations, and at the same time to win a thorough knowledge of the special subjects which eventually will, as a matter of necessity, be useful in the practice of their profession.

While the foregoing remarks may be considered as *apropos* to the work of all students, and more particularly to dental students in Victoria, we think that the privileges in dental teaching, and in the acquirement of a thorough knowledge of their profession, which are enjoyed by the Victorian students, should not be con-

fined to them only; but that the dental students in the other States of the Commonwealth should enjoy, as far as is possible, equal facilities for gaining a complete knowledge of their profession.

With this object in view, we have much pleasure in calling attention to the "Provision for Interstate Dental Students," recently made by the Dental Board of Victoria. The Regulation has been accepted by the Faculty of Dentistry, and no doubt will be ratified by the Council of the University of Melbourne.

The Regulation reads as follows:—"The Board may in its discretion recognise any apprenticeship done by a student who has served his articles of apprenticeship with any person registered as a dentist in any State of the Commonwealth of Australia, or in New Zealand, provided that the apprenticeship has been served after the passing of the matriculation examination of the University of Melbourne in the prescribed subjects. Such apprenticeship when so recognised shall be as valid as if it had been served with a dentist registered in Victoria.

When we take into consideration two facts: (1) That in nearly all the States laws have been enacted by Parliament, giving power and discretion to the various Dental Boards to recognise only certain standards of dental education; (2) and, while in two of the States only these facilities for acquiring such an educational standard in affiliation with the Universities are to be obtained. The regulation making such a provision is significant, and should benefit the interstate students by enabling them to enjoy the unquestionable advantage of taking the four years' course for professional training at the Australian College of Dentistry.

At the present time there are no Universities in several of the States. It has been the custom of the University of Melbourne to hold the Matriculation Examination in the leading centres outside Victoria as the demand for them arises. Thus there will be no hindrance to the students in the other States taking the degree of Licentiate of Dental Surgery or of Bachelor of Dental Surgery of Victoria.

The recognition of the L.D.S., as well as the B.D.S., Victoria, by the General Medical Council, and, as we pointed out last month, the same recognition has been given by the Royal College of Surgeons of England, opens out a wide field to the Australian student, which, if he does not belie his name, he will naturally avail himself of.

We venture to express the opinion that this form of reciprocity will eventually be the means by which "our narrow views, if we

have any, and smug complacency will be dispelled to the vanishing point, the insignificant learning and skill of our tiny quarter of the globe will be expanded, and thus our healthy and liberal-minded students will satisfy their natural craving by reaching out far into the world of knowledge, and feel they are living in it to good effect. In this advocacy we are not actuated merely by veneration for antiquity, in slavishly following what is done in Great Britain, nor by love of a grand display, neither by a thought of individual aggrandisement, but by the persuasion that the spirit of order and true interstate reciprocity will be effectually accomplished rather by securing an equality of standard in dental education, and a like equality in status of the different Dental Societies, than by an indiscriminate opening of the doors to all and sundry, whether educated or otherwise.

THE DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Dental Board of Victoria was held on Friday evening, the 22nd of September, 1905, at eight o'clock, at the Board's Offices, 484 Collins Street, Melbourne. The chair was occupied by the President (Dr. Springthorpe). There were also present Dr. Mullen, Mr. Clarke, Mr. Iliffe, Mr. McGregor, Mr. W. Witt, J.P.

The minutes of the previous meeting were read and confirmed.

November Examinations.

All the examiners in connection with the forthcoming L.D.S. and *sine curriculo* examinations were appointed, and the necessary arrangements for holding the examinations were made.

The Amending Dental Bill.

The Under-Secretary forwarded a list of emendations and additions to the new Dental Bill, which were recommended by a meeting of delegates from the various Medical Societies of Victoria, and requested that he might be favoured with an expression of the views of the Board thereon.

The Registrar reported that the Board had drafted the following reply, which had been duly forwarded:—

THE DENTAL BOARD OF VICTORIA,
MELBOURNE, *September 18th, 1905.*

THE UNDER-SECRETARY, *Melbourne.*

DEAR SIR,—

Referring to your letter of the 9th inst, No. 2538, forwarding a list of amendments and additions to the new Dental Bill which have been recommended by representatives of the various Medical Societies of Victoria, and requesting that you may be favoured with the views of the Board thereon, I am instructed by the Board to reply as follows:—

DIVISION 1.—THE DENTAL BOARD AND OFFICERS.

Section 5 (4). After "legally qualified medical practitioners" insert "elected by the legally qualified medical practitioners of Victoria."

The Board see no reason whatever why the election of the Board should not be by the dentists and the Governor-in-Council only, as at present: no reasons have been advanced to the Board to justify any alteration in the present law. The dentists, and not the medical men, are the persons to control dental matters through their elected representatives. Other interests are sufficiently safeguarded by the power in the hands of the Governor-in Council to nominate without election two members of the Board.

Section 5 (6). After "if at any time the dentists" insert "or legally qualified medical practitioners."

The Board take the same view as expressed in the previous paragraph; i.e., the same objections apply.

DIVISION 2.—THE REGISTER.

Section 9 (2). "The Board may." Cross out "may" and insert "shall."

The Board has carried out its duties in respect of this section, and has caused the notices referred to to be sent out from time to time. The Board therefore does not approve of the substitution of the word "shall" for "may," the more especially as the proposed alteration, even allowing it makes a material change, might involve expenditure which the Board does not consider will be justified by the circumstances of the case. The section as now worded is similar to the sections for the same purpose in parts one and three of the Medical Act, 1890.

DIVISION 3.—REGISTRATION AND PRACTICE.

Section 15 (1). "And every legally qualified medical practitioner" to remain as in former Act.

In the opinion of the Board the time has come when a legally qualified medical practitioner shall no longer have the right on his medical qualification only to call himself dentist and to practise dentistry. This position is accepted by the University of Melbourne, which gives a different degree in dentistry to that given in medicine, and requires graduates in medicine to fulfil all the conditions applying to the Degree of Bachelor of Dental Surgery if they wish to obtain that degree. If, however, the Chief Secretary does not accept this view, the Board would, rather than lose the Amending Bill, prefer to have the Amending Bill with the present clause in it, but in that case the Board considers it imperative that the legally qualified medical practitioner should register as a dentist, so that he may come under the same legal obligations as dentists. Some such clause, therefore, as follows, would in the opinion of the Board be essential

Addition to Section 23 (5).—"The Board shall register as a dentist any legally qualified medical practitioner who makes personal application to the Board, and pays a fee of £5 5s. In the event of any such person having his name erased from the register of legally qualified medical practitioners, the Board may, if it thinks fit, erase his name from the dentists' register."

As the recommendations desired by the Medical Societies would give the medical men all the rights of dental practitioners, but with none of the disabilities which other parts of the Bill place upon dentists, the Board again points out the necessity of having medical men registered as dentists.

DIVISION 3.—REGISTRATION AND PRACTICE.

Section 21. Strike out "or where the services of a dentist are not reasonably available."

This section would under the conditions mentioned above remain *in extenso*.

Section 23, B. 1. Mark this section off as (A) and (B).

(A) to comprise 1, 2, 3, 4.

(B) to form an addition.

(1) "Any legally qualified medical practitioner registered at commencement of this Act shall be entitled on payment of

£2/2/- to be registered as a dentist under this Act, but no such registration shall be effected unless the application be made within twelve months from the commencement of this Act, and that the Board shall cause to be sent to all legally qualified practitioners a copy of this section within two months of commencement of this Act."

If the chief Secretary agrees with the Board in its view that medical men should not *ipso facto* be dentists, or be entitled to practise as such, the suggested new clause (23, B. 1) represents the way in which the Board would be most inclined to deal with the whole matter.

Section 23, B. 2. "Any legally qualified medical practitioner shall be entitled to registration as a dentist on completion of such a course as the Dental Board may direct, on payment of the prescribed fee of £5 5s.

The Board has already power under the existing regulations to define the status of any applicant for examination as a dentist. (See Regulation XVII. of the 2nd of February, 1904.) This clause is therefore redundant.

SECTION 10.

The Board desires further to draw attention to Section 10 of the Bill. A dentist would under the section still have his common law rights of appeal to the Supreme Court in case the Board's action was in any way informal.

If the Governor-in-Council is struck out of the clause, and the appeal lies only to the Court, would not the Court in such matters take a view not quite so wide as that which will probably be taken by the Governor-in-Council, which, as drafted in the section, is an additional safeguard to the dentist? (See Allinson *v* General Council of Medical Education and Registration, 1, Q.B., 1894—750. See also Allbut *v* General Council of Medical Education and Registration, (1) 23 Q.B.D., 400.)

SECTION 14.

The Board also suggests that the words "or any information" be added after the word "registration" in Section 14, so that this section will read:—

14. "All Courts of Law and all persons having by law authority to hear evidence shall take judicial notice of the signature of any

person who is or has been Registrar when attached to any certificate of registration or information under this Act."

At present the registrar has been made by the Bench to prove his appointment as Registrar, and has in consequence to attend courts in distant places.

The Board would ask to be furnished as soon as possible with a copy of the Bill as amended by the Honorable the Chief Secretary prior to its introduction in the House, in case any consequential alterations may have been made.

I will be glad, in company with a member of the Board, to wait on the Honorable the Chief Secretary at any time convenient to him in case he should desire further information with respect to any of the above matters.

I have the honour to be, dear sir,

Your most obedient servant,

ERNEST JOSKE,
Registrar.

EVASION OF THE ACT.

A number of cases were brought before the Board in which it was alleged that there had been an infringement of the law. The Board, after carefully looking into all the matters, found that there was not sufficient evidence to sustain a conviction in a court of law, except in one case, and in that case the Registrar was instructed to issue a prosecution.

PROVISION FOR INTER-STATE DENTAL STUDENTS.

The following resolution was very carefully considered, and unanimously passed by the Board:—

"Notwithstanding anything in any regulation regarding apprenticeship, the Board may in its discretion recognise any apprenticeship done by a student who has served his articles of apprenticeship with any person registered as a dentist in any State of the Commonwealth of Australia or in New Zealand, provided that the apprenticeship has been served after the passing of the matriculation examination of the University of Melbourne in the prescribed subjects. Such apprenticeship, when so recognised, shall be as valid as if it had been served with a dentist registered in Victoria."

A large amount of correspondence was dealt with.

The Board adjourned.

E. JOSKE, Registrar.

THE ODONTOLOGICAL SOCIETY OF VICTORIA.

The ordinary monthly meeting of the Society was held in the Rooms, Austral Buildings, 117 Collins Street, on Tuesday, August 22nd, at 8 p.m.

The President (Mr. T. F. W. Hall) occupied the chair. There was only a small attendance of members.

The question of the "Examination of State school children's teeth" was further considered. As the question is one of great importance, not only to the children concerned, who will eventually be the bone and sinew of the Australian race, but, as far as it can be made effective, as a scientific investigation from the dental point of view, it was considered that the views and opinions of a much larger number of members than were present should be ascertained. After a long discussion, it was resolved that the question be deferred for the purpose of obtaining more definite information on the various points which had been brought forward for discussion.

The meeting then closed.

ALEC. L. ELVINS, Hon. Secretary.

The report of the September meeting is unavoidably held over until our next issue.—Ed. *A.J.D.*

COLLEGE NOTES.

DENTAL STUDENTS' SOCIETY.

The usual monthly meeting was held in the Lecture Hall on Friday evening, Sept. 15th. The President (Dr. W. Orr Gray) occupied the chair. There was a fair attendance.

Correspondence was read from the Secretary of the Faculty of Dentistry, concerning the sports clubs of the University. A copy of a letter sent to the Faculty by the secretaries of the Sports Union and Melbourne University Boat Club was also read. The information contained therein is in every way satisfactory to the Dental Students' Society.

The Chairman called on Dr. McCreery to read his paper, entitled "The Action of Nerves in Relation to Disease." The paper was a splendid one, one of the best yet read before the Society, and those present thoroughly appreciated it.

The President moved a hearty vote of thanks to Dr. McCreery, which was carried unanimously, to which Dr. McCreery suitably responded.

The next meeting of the Society will be held on Friday evening, Oct. 20th. Mr. Bindley will read a paper on "Metal Splints."

This will be the last meeting of the session 1905, when we earnestly hope to have a full attendance.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

The monthly meeting of the Board was held on Monday evening, July 31st, 1905, at the Board Rooms, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson) took the chair at 8 o'clock p.m., there being also present Dr. Palmer, Dr. H. Peach, Dr. Kirkland, Mr. C. Hall, Mr. J. Stinson and Mr. G. Norton Russell.

The minutes of the previous meeting were read and confirmed.

The bank pass-book was examined and found correct. Accounts were passed for payment.

The following applications for registration were received:—Bertram Herbert Cox, Nowra; Herbert Skelton, Mudgee; John McKenzie McLachlan, Albury; James Leslie Furness, Ballarat; Nigel Ralfe Hayley, Burwood; George Nicholas Larkin, North Sydney; Herbert John McIntosh, Casino.

The following were registered:—Nigel Ralfe Hayley, John Joseph McManus (Horsham, Victoria), George Nicholas Larkin, Herbert John McIntosh.

In registering Mr. George Nicholas Larkin, the President congratulated him upon holding the highest pass in the recent Board examination, and trusted that his American diploma would be procured with an equally good record.

The solicitors in the case of John Joseph McManus wrote to Board, explaining the applicant's inability to attend, being 800 miles away, and, on motion, Mr. J. J. McManus was registered.

A certificate of examination was granted to Percy Victor Spears.

The auditors' report a d balance-sheet to end of half-year, June 30th, was placed before Board.

The report from Board's solicitor *re* an advertisement appearing in a country paper of an unregistered man was read, and, after discussion, the Registrar was directed to write for sworn evidence of the advertiser calling himself a "Dentist."

Correspondence was read and dealt with.

A letter from police *re* an unregistered man practising was before Board, and instructions given to Registrar to procure or cause to be procu d evidence in support of his charge.

The motion standing in the name of Mr. Hall was seconded by Dr. Peach: "That a shorthand writer shall be present at all meetings of this Board, and a typed copy of discussion filed for reference." After discussion the motion was put to the meeting and lost by 4 to 2.

The motion standing in the name of Dr. Peach: "That permission of the Board be given to the dental students attending the Dental Association classes to present themselves for the theoretical portion of the Board's examination at the next examination, after the completion of their course of study." It was resolved, on the motion of Mr. Stinson, seconded by Dr. Palmer, "That leave be given to Dr. Peach to withdraw motion standing in his name." Dr. Peach withdrew his motion.

Mr. G. Norton Russell gave notice of motion as follows: "That the hours of meeting of this Board be altered from 8 o'clock to 4.30 o'clock p.m., on the last Monday of each month."

The meeting then closed.

HORACE TAYLOR, Registrar.

The monthly meeting of the Board was held on Monday evening, August 28th, at the Board Room, 7 Richmond Terrace, Domain, Sydney.

Mr. C. G. Hodgson (President) took the chair at 8 o'clock p.m., there being also present Dr. Peach, Dr. Palmer, Mr. C. Hall, Mr. J. Stinson, Mr. C. C. Marshall and Mr. G. Norton Russell.

The minutes of the previous meeting were read and confirmed.

Bank pass-book examined and accounts passed for payment.

The following applications for registration were dealt with:—Bertram Cox, Nowra; John McKenzie McLachlan, Albury; Arthur Marshall McIntosh, Sydney; Artnur Hanson, Bondi; Ernest John Copp, Randwick.

The following were registered:—John McKenzie McLachlan, Albury; Arthur Marshall McIntosh, Sydney; Ernest John Copp, Randwick.

The application of Bertrand Cox was further discussed, and ordered to be sent on to Board's solicitor for report.

The Registrar reported the death of Mr. Herbert John Cleary.

Correspondence was read and dealt with.

The motion standing in the name of Mr. G. Norton Russell was seconded by Dr. Palmer: "That resolution passed on July 11, 1904, fixing day and time of monthly meeting of Board be rescinded, and in lieu thereof the following be resolved: 'That the ordinary monthly meeting of the Board be held at 4.45 p.m., on the last Monday in each month.'" After further discussion, Mr. Russell accepted an addition to his motion of the words "to be tried for three months." The motion was then carried.

Meeting closed at 10.30 p.m.

HORACE TAYLOR, Registrar.

THE ODONTOLOGICAL SOCIETY OF NEW SOUTH WALES.

The sixth ordinary meeting of the Society took place at the Rooms, Liverpool Street, Hyde Park, Sydney, on Monday, 21st August, 1905, at 8 p.m., and was attended by about twenty-five members and seven visitors. The President (Mr. Philip Reading) occupied the chair.

The minutes of the last meeting, held on Monday, July 10th, were read by the secretary (Mr. Donald Smith) and confirmed.

Dr. BURNE then introduced Dr. Zeelan, of Dunedin, New Zealand, who was a fellow-passenger on his return from Brisbane lately. Dr. Zeelan is from the United States.

Dr. BURNE said he visited Brisbane last week, and attended the meetings of the Odontological Society of Queensland, when a large amount of kindness was shown him by the members. The meeting was a great success, and had to be lengthened to a second day. On leaving, he had a very pleasant surprise in the shape of a presentation from the members of a gold matchbox. He received every kindness and courtesy during his visit.

Dr. HINDER brought a specimen of a sheep's jaw, showing a deposit of calculi on the buccal surfaces of the teeth, which very much resembles gold in appearance, and about which some correspondence has appeared in the daily papers.

Dr. BURNE passed round a new cervical clamp sent him by Dr. Dunn. It was, he considered, one of the best on the market. He then introduced Dr. Henson, from U.S.A., whom he said was going to join the throng here. Mr. Reading extended a hearty welcome to Dr. Henson, and also to several of the 4th year students who were present by invitation.

Dr. HINDER then read a paper on

PORCELAIN INLAYS: SOME EXPERIENCES AND METHODS OF A BEGINNER.

Mr. President and Gentlemen,—

When one accedes to a request for a paper on a given subject, it is reasonably to be supposed that one is competent to speak with some authority. An endless array of experts have given us their theories, principles and practice, and it occurred to me that, in approaching the work from the above standpoint, some detail may be chanced upon which will prove of interest to other beginners, and at any rate discussion may be aroused from which

we might all derive some knowledge; thus only can be realised the true aims of a Society such as ours.

The work of porcelain inlays is comparatively old, and yet new. Old in principle, but so rapidly have the methods and material improved, that we must perforce acknowledge it as new. Indeed, ten years ago the recognised expert inlay workers of the world might have been almost counted on the fingers, if not quite so, and yet to-day not only do the journals teem with writings and discussions on the subject, but even in our remote corner of the globe do we find every other man with his electric furnace and porcelain bodies, doing his best to keep pace with the ever-pressing demands of modern dentistry.

Some of us, no doubt, are inclined to recall the old quotation:

> "Be not the first by whom the new is tried,
> Nor yet the last to lay the old aside,"

but we must not fear the danger-signal, for, in this case, there is no "old" to lay aside. The most enthusiastic porcelain-worker is bound to admit that good old gold has been such a find to dentistry that the day of discard is very, very far off, but we must also admit that so surely as there is a place where nothing will do the work of gold, just so surely is there a place where nothing will do the work of porcelain.

Think of our young patients, whose neglected incisors present huge cavities surrounded by weak enamel walls. Think of the masses of gold we have built into the treacherous cervical cavities often extending well down the labial surface, and little argument is needed to prove that we want something more compatible with weak tooth structure, and more artistic in effect than gold: and yet, when the strain and force of mastication is brought to bear, and edge strength must be considered as the ruling factor, the solidly-packed gold-fiilling can still laugh at our new invention.

Before drawing more closely to the subject of my paper, I must express sincere regret at my inability to hear the talk of our friend, Dr. Burne, upon this work, and at the fact that his remarks were not recorded, for I feel sure that the opportunities afforded him in his recent trip were fully availed of. Moreover, I fear that the points he gave you might have tended to modify my poor methods. However, if he will see fit to join in the discussion to-night I shall feel obliged.

By the generally-accepted term "Porcelain Work" is meant the actual mixing and baking of the body as it comes to us from

the manufacturer. Prominent among the pioneers of porcelain as we know it to-day we find the names of Land, Allan and Close. The first-named, whose furnace was for years the standard of all gas furnaces, has been given by many the credit of introducing porcelain as applied to the filling of teeth. Allan and Close were associated with the preparation of bodies formerly intended for use in continuous gum work, but unsuited to the requirements of the inlay worker for several reasons. Close's body in its original form was too coarse to admit of artistic carving, and is prepared in but one grade and colour. Finely pulverised, however, it forms a very stable and strong body for first bake in crown work.

As the demand for more variety in grades and colour increased, the supply was soon forthcoming, and compounds somewhat less refractory and more suitable to requirements were the result. The earliest method of inlay work involved the grinding of suitably shaded Ash's or S. S. White's teeth, till a piece of porcelain was formed which roughly fitted a cavity; later Messrs. Ash & Sons prepared some tapering sticks of porcelain, designed to fit circular cavities in the labial surfaces of incisors, sections of which were cut off and cemented to place. Then came the glaze inlay, which was short-lived, its failure being due both to lack of strength and permanency of colour. Finally, we have the body of to-day, known in the two standard grades of high and low fusing, the dividing line being drawn by the melting point of gold, and in the products of various manufacturers the students find a wide scope for selection in both grades, put up in convenient form and suitable to the requirements of all branches of the work as now practised.

My first efforts in porcelain work of any kind consisted in the restoration of a few incisal tips. Two cases I shall quote in which about a third of the central was broken through accident, and was restored by grinding down an ordinary Ash molar of suitable shade till a piece of porcelain surrounding the pin was left approximating the required shape. Two pits were then drilled in the tooth at slightly divergent angles, one on either side of the pulp. After fine fitting the tip was cemented to place. To my surprise, this work, after six years, is still doing good service—more especially surprising from the fact that the patient went through the China campaign, and, although he returned with molars and bicuspids broken by hard biscuits,

the tip had weathered the storm, a fact which proved to me that porcelain is stronger than I thought.

But to approach to the subject of inlay. About three years ago a patient presented himself with a second upper bicuspid missing: the space thus caused had partially closed, but when the lip was drawn back a huge amalgam filling was plainly visible in the mesial aspect of the first molar. To make the appearance less unsightly, I decided to replace the amalgam with one of these new-fangled porcelain inlays. Ash's high-fusing body was used, and the inlay baked in a Christisen gas furnace. The result was somewhat crude, the edges not too perfect; the patient was warned of the uncertainty of success. However, a few weeks ago, I saw the inlay still in place, with the cement in almost perfect condition, a state of things that has more or less encouraged me in the work. Subsequent operations have included a few molars and bicuspids, but the bulk of my work has been along the line of restoration in the twelve anterior teeth, and it is to cavities in these teeth that I wish to direct your attention.

To intelligibly consider the subject in hand we must of necessity dissect it. The first consideration must be the preparation of cavities, and with it that all-important point, namely, retention. Many expert opinions as to the preparation of cavities have been advanced, but it is not the province of this paper to discuss this part of the subject in full, and for detail I must refer you to papers published in the journals, notably that of Dr. Thompson, in the "Dental Digest" of April last year.

Of course we all know that the cavities must be of a form which permits the free removal of the matrix, the edges must be abrupt as opposed to the bevelled edge of the gold cavity: but just where to draw the line between the retentive form of the cavity and the faith to be placed in the adhesive qualities of the cementing medium is a serious question for the beginner. As a general rule, I prefer to give the cavity a retentive form. By retentive form is not meant the cutting of deep grooves, but something after the principal illustration in the model which I pass round. Such practice may necessitate a little sacrifice of tooth structure, but when the inlay slides into place, one may take comfort in the knowledge that it is there to stay. We may cause a little extra pain and be forgiven, but the majority of patients do not like fillings to "drop out," as they call it. Another feature of this class of cavity is the flat base and sides, exerting—it is claimed by some—a marked influence upon the shade of the inlay.

One writer says: "In the square cavity we are dealing with plain surfaces; the direct rays of light strike upon the porcelain, pass through this translucent substance, and strike the plain surface of the cavity, from which they are reflected in parallel lines. In the round cavity we are dealing with a spherical reflecting surface, and the ray of light passing through the porcelain is not returned in a parallel line, but makes an angle with the incident ray, and is returned to the surface at a different point from that of its entry. Thus it is very evident that the problem of refraction of light is more easily solved by the angular than by the round cavity."

The foregoing remarks of course refer to simple cavities, but when the proximo incisal corner is involved, a radical departure is made from the preparation as for gold. The majority of these cases occur in devitalised teeth, and, although the use of pins is a debatable question, I prefer to use them whenever possible. My experience may not perhaps be extensive, but has included sufficient numbers of corners subjected to undoubted strain to encourage me in the use of either pins or wire loops. Beginners experience some difficulty in securing these retaining pins, but if the matrix be first burnished, the pin carefully inserted, body built round it, and this carefully dried, there is no trouble about it. The pin used need not be long—a small extension will prove a powerful aid. In addition to the pin anchorage, it is of course advisable to take advantage of retentive cavity formation in all cases where possible. One other point as to the joint at the cutting edge: The usual method seems to be to make the line of union parallel to the short axis of the tooth, but I have found a less liability to slip by cutting the tooth at an angle.

While on the subject of retention, it might be as well to describe a method of retention in simple cavities. A globule of oxyphosphate of zinc is placed in the matrix next the axial wall before the application of the body. This is burnt out during the bake, and leaves a cavity in the inlay which becomes filled with cement in setting. Another means of retention in simple cavities is found in the use of hydrofluoric acid.

The next heading to be considered is the matrix. As my experience with low-fusing bodies has been but nominal, I must confine my remarks to the platinum matrix. We are told that the platinum should be about 1000th of an inch in thickness, but the material imported by our supply houses is inlay matrix foil,

and is of widely different grades, some so thin that, except for very small cavities, it is useless in my hands, and again so thick that it approaches plate in stiffness. A happy medium is found, however, in a preparation made by Rowan, of gold foil fame. This combines the qualities of softness and yet of rigidity sufficient to allow of handling.

In applying the foil, a good surplus should be allowed to extend beyond the margins of the cavity, both to facilitate the manipulation and as a guide to contour in the final bake. I prefer to start with a piece of moist amadow, and gently work the platinum to place. Having gained a rough fit, the matrix is next re-annealed, and returned to the cavity and burnished to place with large and then with small burnishers. The edges next receive attention, and in this direction I find the set of case burnishers very useful. Finally the matrix is moistened, and a ball of paraffine and wax pressed into it—over this a strip of wide tape is drawn tightly, and various burnishers applied outside the tape. The point I wish to emphasise is the expediency of gaining a perfect fit prior to the introduction of the body. The use of paraffin and wax in this direction may not be new to you, but I have found no material that will force the matrix into place quite so well, and furthermore the wax may be left in position while the matrix is withdrawn, thus minimising the risk of bending whilst its removal from the damp matrix is quite easily accomplished.

A class of approximal cavity which proved somewhat of a stumbling-block to me at first was that in which the cervical margin extended beneath the gum. Although the tissue may be well packed away and the margin fully exposed, I found difficulty in forcing the matrix over this edge till I adopted a simple method of folding a narrow margin in the foil at this point. The folded edge is first passed as high as possible under the gum, and while held in position the platinum is quickly forced to assume a rough fit. The pressure naturally draws the foil away from the cervical margin. While still in the cavity, a suitable instrument is passed under the flap, raising it and folding it over the edge. The fine burnishing may then be proceeded with in comfort.

You will note that in these few remarks upon matrix formation the impression method has been avoided. While possessing some knowledge of the procedure, I am bound to admit ignorance of practice, for as yet I have failed to see the advanage in its use, unless one may turn the work over to a mechanical assistant to

save time; but with porcelain this is not desirable. However, I know we have members who do use the system, and perhaps their remarks may induce me to take it up.

Next in order comes the body. Its selection, mixing, manipulation and baking. The beginner is confronted with a multitude of makes and grades of porcelain body from which to choose, each having its ardent champions. Some prefer the low, some the medium, and some the high-fusing type. It seems to me the most desirable course to select perhaps two grades of what might be termed standard make, and, having selected, learn to use them.

It has been said that the manufacturers of dental instruments put upon the market numbers of inventions designed to suit the man that cannot do good work, and not the man who can. There is a good deal of truth in this, and just as one learns to use successfully one particular instrument, so I believe one learns to use one particular furnace and one body, and to know just at about 2200 deg. Fahr., and I find in using the lower fusing what that furnace will do with that body under certain conditions. My own experience has been mostly with one particular high-fusing body. It may have no claims over other makes, but it suits me: the shades are not too pronounced, and with practice I have learned its little peculiarities. This particular body fuses at about 2200 deg. Fahr., and I find in using the lower fusing compounds the difficulty of fine shading is increased and the inlay is more opaque. This probably is due to the fine pulverising of the body, and also to the manner in which the flux is incorporated, two factors which tend to produce more density and less translucency. As a mixing fluid I use ordinary water. Perhaps it should be distilled, or maybe the preparation of the manufacturers possesses some desirable advantage, but this is a point upon which I seek information.

In applying the body for first bake many suggestions have been made to circumvent the shrinkage trouble. Some prefer to build a ring round the edge of the matrix, leaving a space in the centre, the theory being that the porcelain will shrink from the centre. In small inlays this would seem rather difficult. Some, again, apply the very thin fluid of shellac varnish to one end of the matrix, so that in shrinking the body leaves the surface so coated without displacing the platinum. Yet another method, and that I generally use, is to fill the matrix fairly full, and in large inlays to make an incision across the centre with a sharp instru-

ment, thus preventing the tendency of the body to shrink upon itself. As a final precaution, I pass the blade of an old lancet kept for the purpose round just below the edges, making sure that they are quite clean and clear, so as to allow of final burnishing at the next fitting. This bake is brought to the advanced biscuit stage—that is, a fusion without a glaze—thus minimising the shrinkage at the second bake. The matrix may now be trimmed somewhat, and is then returned to the cavity, and the tape applied as before, after which the inlay is held firmly in place whilst the edges are brought to perfect contact, and in this work I find the case burnishers especially useful.

The next application of the body more than fills the matrix, and should it overrun the edges a fine camel-hair brush will serve to trim it. If the body be not too moist, and the brush be squeezed between the finger-tips, the slight moisture which finds its way to the edge will be taken up by the brush. I am not as yet a two-bake man, but in the third, and possibly another bake, opportunity is taken for fine shading.

And by the way—shading—a very important "by the way," but a point in which I have but few theories to offer. In a majority of cases my shades have been satisfactory, if not perfect: but on the other hand the minority, which is not small, might have been better. My practice in matching teeth of normal shades has been judiciously to mix the basal shade of deep cream with an almost white for the first bake, then to this mixture is added any variety of shade to suit the case. Even if the tooth be of a pronounced blue type, I prefer to start with the above mixture, for we all know, in the selection of teeth for plate work, how easily we can err on the blue side, therefore I think it well to make any final shading subservient to the basal cream.

Then, again, it seems to me that more attention must be paid to the colour of the cement. A gray cement, for instance, will often obliterate the joint more effectively, but it must be used with caution. For example, two approximal inlays were inserted at the medium line. One central with a living, and the other with a dead pulp. The final shading for the latter was altered slightly to conform with the last translucency of the tooth, and both inlays were fitted to place and looked quite satisfactory. The live tooth was a very light cream, and a cement of that shade used in setting. The other inlay was set with a grey cement. Result after a week—the live tooth was perfect in every way,

while the inlay of the pulpless tooth presented in certain aspects that wretched dead appearance which is such a worry to us. Not so bad as I might lead you to suppose, and far better than a gold filling would look, but not perfect.

I offer no theory, gentlemen, but feel sure that in this cement question the beginner has a wide field for experiment.

The inlay being complete, we have now to strip the platinum, a process which seems to be much more difficult with high than with low-fusing porcelain. Of course the edges should first be cleared by drawing towards the centre of the inlay. For this purpose I first used the various forms of pliers, but soon found it far safer and quicker to do it with the finger-tips. In this way the matrix is much less liable to tear, and the edges will stand the pressure of the fingers, whereas a slip with a steel instrument results in a fracture. Any stray speck may be removed with a bur on the engine applied gently.

The preparation of the inlay for retention has been dealt with, but now as to the setting. What course should we adopt to allow the cement to set, for the careless regard of this important factor will wreck an otherwise perfect work. We would prefer, of course, to have the patient sit for an hour with rubber dam in place, but this cannot always be done. My practice has been to apply the dam in cases where the least doubt exists of moisture reaching the cement—otherwise I use the napkin. If the rubber be in place, the ligature ends are left long; if not a similar ligature is applied before setting the inlay. When the porcelain is in place, the two ends are taken and plaited till the centre of the inlay is reached. One end is then looped over the tooth and tied to the other tightly, using the surgeon knot. This simple method prevents the ligature from slipping up or down, and keeps a constant pressure on the cement. The tooth is kept dry for ten minutes, if possible, when the surplus cement is cleaned away, and a varnish applied and thoroughly dried. The ligature is left in place for several hours, and the patient instructed how to remove it.

The combination of gold and porcelain opens up another wide field for study, but, beyond quoting a recent case in which I found it useful, we shall not discuss the subject. The tooth was a central incisor, presenting a compound cavity, involving both the approximal surfaces and the incisal. Pulp vital, but considerably receded. The mesio-approximo-incisal portion of the

cavity was large, and extended deeply towards the cervical margin, while labially quite a large corner needed to be restored. The distal approximal cavity was smaller, and the labial plate of enamel almost intact. An inlay was placed in the former, and a pin allowed to extend from the porcelain under the labial enamel. At a subsequent sitting a gold filling was inserted in the distal approximal cavity, and allowed to extend along the cutting edge, engaging the pin. By this means the gold was hidden, and yet furnished a cutting edge more stable than porcelain.

In conclusion, gentlemen, I would say that if my remarks have taught you nothing, I have learned in a degree the magnitude of the subject of porcelain inlays. As I wrote, the points of interest and importance seemed to crowd in to such an extent that I felt very glad my paper was not written under a more pretentious heading than "Some Expreiences and Methods of a Beginner."

A short discussion followed.

Dr. BURNE passed round some pictures of Dr. Thompson's methods of preparing porcelain inlays.

Dr. CARTER said there was one point he would like to speak about, and that was the way we have of mixing cement. He did not think it was thoroughly understood by many. His experience was that you either get it too thick or too thin, and very seldom hit the happy medium.

Dr. E. R. MAGNUS said he thought Dr. Hinder should be congratulated on his paper. With regard to the mixing of cement, his experience was that everyone has their own way of doing it. You get a finer grain by mixing a small quantity at a time and working it very quickly. In some journals more notice is taken of mixing the cement than anything else.

Dr. DECK thought Dr. Hinder's paper was splendid. He considered Fellowship's cement was the best. With it was supplied a method of measuring liquid and power, and by using it you get the quantity you require. There is a new kind of cement on the market called Zincoid's. He had tried it, but could not yet say whether it was good. It is in six shades, and possibly may be better than those in use.

Mr. SATCHELL said he thought the matter of cement was one of

great importance. Every year we are getting new cements on the market. His experience was that Weston's cement was the best. He saw a patient who had had a temporary filling put in 15 years ago by an American dentist, and was so interested in the case that he asked the patient to write to the dentist, and ask what cement was used, and to his surprise found it was the one he always uses—Weston's. Some think Harvard's best for porcelain inlays.

Dr. BURNE said he did not think he could say anything different from what he had said before on the subject. He considered that cement was a very important feature, and one that was not thoroughly understood. Fellowship's cement was, he thought, the worst on the market for inlays. Dr. Head, one of the best dentists in the United States, considered that Harvard's was the best. He claimed that Ames' was just as good. He said he would have been very glad if Dr. Hinder could have given more attention to the baking in his paper. He was a bit of a faddist in this way. In his opinion the death-knell of gold caps has been sounded. The dentist who will not do porcelain inlays will find himself left behind. The use of camphor was left out in Dr. Hinder's paper also. The camphor used must be Japanese, and can be obtained locally. The subject of fusing is one of the most difficult. The best porcelain is that of high fusing. He then passed round a set of new colours which he considered were the finest he had seen. He congratulated Dr. Hinder upon his paper, and spoke a few words to those who used electrical furnaces. The higher it is necessary to fuse your porcelain the shorter the life of your furnace.

Dr. ZEELAN spoke a few words on the use of pins. He also said he found, in mixing the cement, if you put a little gum arabic with the fluid it is a great help. Dr. Capon suggested it to him. He said that, insead of using a camel hair brush, he found a red sable one better. He found the use of camphor very fine indeed.

Mr. BRYDEN asked if anyone present had any idea of the life of these inlays. He found Jenkins' body the most encouraging for beginners. It is remarkable how quickly your fingers become used to working these bodies.

Dr. BURNE said he had seen porcelain inlays done by American dentists which had lasted from 8 to 10 years, and were still good.

The Chairman then asked Dr. Hinder to reply.

Dr. HINDER said he did not think there was any special reply necessary. He considered that when the voltage of the supply circuit differed from the voltage of the furnace, the heating power of such furnaces also differed, due, no doubt, to the forms of resistance used. For instance, one furnace will fuse Ash's high-fusing body on the second step, while another needs the fourth.

Mr. SATCHELL moved a vote of thanks to Dr. Hinder, which was seconded by Dr. E. R. Magnus.

The meeting then closed.

DONALD SMITH, Hon. Sec.

QUEENSLAND.

THE ODONTOLOGICAL SOCIETY OF QUEENSLAND.

[Continuation of the Report of the Annual Meeting, held in the rooms of Dr. Gibson, Queen Street, Brisbane, on August 9th and 10th, from page 280 in the August number.]

Dr. BURNE, the delegate of the Odontological Society of New South Wales, who, on rising, was received with applause, said that when he was at the St. Louis Dental Congress, he had the extreme pleasure of representing the Odontological Societies of Victoria and New South Wales; the object of his visit being to obtain information both practical and otherwise of any new processes or ideas, so as to render some service to the Societies he had the honour to represent. He then introduced to the meeting a number of interesting exhibits, which he graphically described, and explained in detail the different processes employed in their use. The following specimens were handed round for inspection. Amongst these were:—1. Dr. Le Creon's pyrometer; 2. Dr. C. N. Johnston's specimens of carved teeth with the cavity prepared, showing the methods used in carrying out "extension for prevention"; 3. Sectional trays for difficult plaster impressions where natural teeth are standing; 4. An entire porcelain jacket; 5. Sectional crown ring; 6. Method of constructing a porcelain crown,

using a diatoric tooth attached to a platinum post by Close's body; 7. Sharp's seamless crown outfit; 8. Dr. Truman's formula for 22 carat solder flowing freely on 18 carat plate; 9. Specimens of dentistry past and present—natural teeth set in bone as an artificial denture one hundred years old; the present illustrated by a specimen of continuous gum work.

Mr. EDEN, President, at the conclusion of the demonstration by Dr. Burne, said he could not find words sufficiently strong to express the gratification and pleasure he had experienced in listening to the remarks of Dr. Burne. The members were equally pleased and greatly indebted to him, and when they remembered the time Dr. Burne had expended in coming to be present with them, they must all feel very grateful. He did. He trusted that this was only a beginning, the first of many re-unions of a similar kind. He had hoped that they might have been able to prolong their session till the next day, when they might have tne pleasure of further exhibits from Dr. Burne, but the Doctor told him that his time of leaving for Sydney was uncertain, consequently he did not feel justified in calling them together again. At the same time, they all had learnt a good deal—he could assure them he had; and he trusted that they would all join with him in a most hearty vote of thanks to Dr. Burne, by acclamation, for the pleasure and instruction he had given them.

The vote was enthusiastically carried, with great applause.

Dr. BURNE, in reply, said he was pleased that he had succeeded in gaining their attention by going through some little ideas with which his work at home was associated. He regretted in one way tnat the time placed for his remarks and demonstration was so low down in the programme, for he had yet got only half-way through his bag of specimens, and besides that he wanted to do some practical work. He thought if he could have gone through most of the things he had shown them, with the use of a room and one of the members, it would have been more entertaining and instructive. As far as next day was concerned, he believed there was a likelihood of his boat leaving then. There was another reason. He had been married close upon twenty-three years, and, except on one visit to Victoria, he had never been from home on a jour-

ney without his wife, and he did not think he would be doing the right thing in giving the whole of his time to them, while his wife stayed at the hotel by herself. So he felt that the little time he had to spare next day he would devote to her. But if he found that the boat did not leave till evening, and there was any chance of their worthy President calling them together for a few hours, it would give him great pleasure indeed to be present.

On the motion of Mr. Jones, it was decided to adjourn till 4 o'clock on the following day, and the proceedings terminated with a vote of thanks to Dr. Gibson for the use of his rooms.

The Inaugural Dinner.

In the evening, at the invitation of the President, the members of the Society and the visitors assembled at the Café Eschenhagen, Queen Street. After an excellent dinner had been partaken of, the following toast list was duly honoured:—

The President proposed the toast "The King," which was drunk with musical honours.

Mr. Henderson proposed "The Dental Board of Queensland," coupled with the name of Dr. Hopkins, the President of that Board. He briefly referred to the inception of the Board, remarking that the suspicion with which it had at first been viewed by the rank and file of the dentists had now practically died out, and he expressed the opinion that if the Minister in charge of the Act controlling the Board accepted the Board's recommendations it would be better for everyone.

Dr. Hopkins, replying, said it gave him great pleasure to be present. As the first President of the Dental Board he had had a good deal of experience of its work, and he assured them that the Board had tried to do justice to all without fear or favour, and in the interests of the dentists as a body. It seemed to him that the registration of dentists, and seeing that they had a proper education for the profession, was in the interests of the public rather than in the interests of themselves. He had been struck many times during his professional career by the way in which they allowed persons to call themselves dentists and attempt operations which resulted in pain and misery to their patients, which led to further expense, from the fact that they (the patients) had ultimately to call in a dentist properly equipped and have the work

done over again. He had seen this happen times without number, and he had impressed upon members of the Legislature that it was the poor man who suffered most from this sort of thing happening. The Dental Board had had a very hard road to travel. They had, he might say, a very imperfect Act to administer, but they had done the best they could for the public and for the dental profession, and he thought they had done that without unduly pressing upon anyone. He hoped the Government would see the necessity for amending the Act.

Mr. EDEN said the Dental Act, as far as Queensland was concerned, dated some fifteen years ago, when they had their first meeting. They thereupon resolved to form an association, by the aid of which they hoped to get a bill through the House, but the chemists were too strong for them and prevented it. The bill was talked out. He remembered calling on the late Mr. Dickson and asking him if he were Minister would he bring a Dental Act forward as a Government measure, but though he was favorable at the time, when he became a Minister he was of the opinion that the measure was one for a private member to bring forward. Then at last Mr. Morgan stepped into the breach, and they had now to be thankful for small things. As regards any amendment to the Act, the Minister had told him that there was so much business on hand this session that it could not possibly be brought forward. But they still hoped for better things.

Dr. BURNE proposed "The Odontological Society of Queensland," and said it gave him great pleasure to do so. The Society was one which should be hailed with pleasure, for he could tell them that they had had a hard fight in New South Wales, where they had formed a Dental Association of which he had the honour to be elected President. That Association was purely political, and existed for the purpose of getting a bill through Parliament. They succeeded in getting the bill through, but then followed a great deal of bickering and jealousy, and the Association was dissolved. After that the Odontological Society of New South Wales was founded. Without wishing to pose as a preacher, he would like to tell them what he thought constituted a successful society. In the first place he thought that when a man was proposed and accepted, the moment he entered

the Society, the President should present him to the Council, and he should not go away without knowing everyone on that Council. He strongly advocated that course, though, as they all knew, boys were boys, the Society should do all they could to make the boy feel that he was the same as themselves, and make them feel at home. If they looked into the records of the English Societies, they would find that there was always something to bring them together, something of a social aspect. That was the only way in which they could become a success as a Society. If the boy felt he was present on sufferance, sooner or later he would quit the Society and the Society would suffer. He concluded by wishing the Society health, prosperity, and success, and a useful career.

Mr. EDEN at this stage read a number of apologies for the absence of about twenty dentists from various parts of the States. He also read telegrams of congratulation from the Odontological Societies of both Victoria and New South Wales.

The PRESIDENT, in responding to the toast of the Society, proposed by Dr. Burne, said he did so with feelings of embarrassment. Strange to say, the history of the Odontological Society of New South Wales had been similar to that of Queensland. The same thing occurred with Queensland, because the Dental Association of Queensland had fallen through, and on the foundations of that they had this Odontological Society of Queensland, and for the inception of same they must thank their worthy secretary, Dr. Gibson, and it was at Dr. Gibson's instigation also that the meeting was being held at his rooms. It was now five months since the Society was formed, and they were going strong; and he trusted that with sufficient pabulum they would attain to healthy youth and develop into a strong, vigorous, and permanent manhood. Since the inauguration they had had several valuable papers, and he trusted that the work done that afternoon was only the beginning of good things to follow. The papers they had heard were all instructive and interesting, and if the good feeling which had been evidenced among the members continued, there was no doubt that they had a long life and a useful future before them. He concluded by again thanking Dr. Burne for the kind manner in which he had proposed the toast.

Mr. EDEN proposed "Our Visitors." He said he was sure they were all very thankful to Dr. Burne and Mr. Hall for their pres-

ence, and particularly for the demonstrations, interesting paper, and valuable information they had given. He was sure they would all be thankful if at any future time Dr. Burne could again honour them with his presence, and continue his advice and instruction. He wished also to thank Mr. Taylor, as representing the Dental Board of New South Wales, for his kindness in bringing with him a large number of interesting articles.

Mr. TAYLOR, in reply, returned his thanks for the honour with which the toast had been received. He said it was indeed a great honour and a great pleasure to come from Sydney to meet the dentists in Brisbane, and he only hoped this would not be the only occasion on which he would be able to come. At all times he would be ready to place himself in their hands for the advance of dentistry.

Mr. HALL said he took it as a duty to come, and a very great pleasure also, bringing as he did the greetings of another Society. He expressed his thanks for the manner in which he had been received, and assured them on behalf of the Society he represented that they would be as glad to see them in Sydney as they were in Brisbane to see visitors.

Dr. BURNE, who opened his remarks with the quotation "Once more into the breach," also on behalf of the Society he represented, said he had very great pleasure in returning thanks for the cordial way in which they of Queensland had treated their visitors during this conference. He was very pleased to be present, and next year, if he were spared, he assured them they would find him in the breach again. In the meantime, if any of them liked to come over to New South Wales, they would find a hearty welcome at his rooms.

Mr. E. F. HUGHES proposed "Kindred Societies," coupled with the name of Dr. Burne, of the Odontological Society of New South Wales. He did not think it was necessary for him to make a speech, but he hoped all would respond heartily to the toast, "Kindred Societies."

Mr. HALL responded. He said he regarded every dental society which was started in a country a distinct advance to the profession. He had the honour to represent one of these societies, and though one of the newest societies, it had done excellent work in raising the status of the dental profession. He would like to see two active associations in every State, and then the holding of congresses. On behalf of the society he represented, he expressed his thanks for the toast.

Dr. BURNE, in responding, referred to the exhibits he had shown them earlier in the afternoon, and said that with one exception they all came from America, the place in which dentistry was far and away ahead of any other country. He reminded them of how much they were indebted to the United States for the progress they had made. But Queensland in its wisdom had decided that dental graduates from America no longer may find a resting place in Queensland. He asked them if they realised if

they were doing the right thing in saying that Queensland should no longer recognise them. It was, he thought, a great mistake, and he advised them to take a little time to consider the matter. He knew his remarks might not be approved, but he felt that in his position it was questionable whether he would be doing his duty by keeping silence on the subject. He assured them that he had been trying to help along the dental profession all he could, and he only hoped the remarks he had made would be taken in the way he had intended them, and that they would do "a square deal all round." In conclusion he said he would be very pleased to report to the Dental Societies in Sydney that he had a really good time.

Mr. W. R. PARKER proposed "The Medical Profession," to which Dr. ROBERTSON responded.

Dr. BURNE proposed as a concluding toast "The President," and in the course of his speech caused a good deal of amusement by his humorous references to his relations with Mr. Eden in the years gone past.

On Friday afternoon, at 4 o'clock, the President opened the meeting in the form of a presentation to Dr. Burne. Mr. EDEN, addressing Mr. Burne, said:—The members of this Society are delighted with your kindness in demonstrating to them the different instruments and exhibits which you have brought up with you, and are not forgetful of the expense and serious inconvenience incurred in your self-denying interest in the welfare of our profession at large. Upon this occasion in particular your generosity has helped so much to make this our initial work in session the success we scarcely hoped it would be. They have entrusted to me the most pleasant task of presenting you with a gold match box as a little memento of their appreciation of your kindness on this memorable occasion—the first gathering of dentists in Brisbane from this and the sister States. I herewith hand you the small token, hoping you may be spared many years to share the blessings of life with your wife, and wear it with pleasant recollections of your visit among us. We hope we shall again have the pleasure of your company and instruction next year and years after, and we all wish you *bon voyage*, trusting you may be able to give such a good report to the Society you have so ably and so pleasantly represented, that others will follow your good example to honour us with their presence next year. We again wish you long life, happiness and continued prosperity. (Cheers.)

Dr. BURNE, in accepting the present, said that this had come as a complete surprise to him. Whatever ideas he had gained at the recent dental congress at St. Louis, he was only delighted to show to the Odontological Society of Queensland. When looking at the present, he said he was glad it was a match-box and not a sovereign purse, as he would have no difficulty in keeping it filled. He extended to every member of the Society an invitation to call upon him should they at any time visit Sydney. He hoped that

at a similar meeting next year to again be present with them. He thanked the Society sincerely for their expressions of esteem, and with all his heart he wished them good luck. (Great applause.)

Mr. F. WILLS, of Brisbane, showed his patented method of strengthening vulcanite dentures. Gold wire gauze was specially woven to make the strengthener. A zinc die and lead counter die were necessary to the gold gauze.

Mr. F. MACLEOD presented a complete upper specimen gold denture, in which each tooth was made of a crown of different design. The crowns were attached to the gold plate by vulcanite. The work was most skilfully performed.

Mr. F. A. JONES presented a number of specimens of abnormalities, each specimen being neatly mounted.

A member present asked Dr. Burne if he had any experience with the "Wilcox-Jewitt Obtunder."

Dr. BURNE explained the use of the instrument, and said it had been of decided use to him. There were some patients that when he heard the names announced he felt a sort of spinal neuralgia. Now, to him, the Wilcox-Jewitt Obtunder in his office had stopped this. The difficulty was in completely confining the fluid in the tiny cavity that is made for the reception of a needle-point. The point should be placed where the cavity is least sensitive. It remained to be seen whether the chickens would come home to their roost, as with the result of some cases of cataphorisis. He had talked with some operators who had used this instrument for over twelve months, and all results regarding the after-state of the pulp seemed satisfactory.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The 126th monthly meeting of the Dental Board was held in Furnival Chambers, 241 S. George's Terrace, Perth, on Friday, 1st September, at 5.15 p.m. There were present:—Dr. F. M. Wilkinson (in the chair), Dr. Wardell Johnson, and Mr. A. J. Wright.

The minutes of the previous meeting were read and confirmed.

REGISTRATION.—H. T. M'Gowan, of Prahran, Victoria, applied for registration. The application was refused, as the applicant had none of the qualifications required by the Act. The name of A. O. Holst, dentist, Cue, was restored to the register. That of Dr. G. D. O'Neil had been restored to the register at a previous meeting.

Correspondence was received from D. M. Wilson, Herbert Solomon, A. T. Mills, the Colonial Secretary, H. J. Tuckfield and Dr. Earle Newton.

The bank pass-book and the Board cash-book, showing amount at credit of current account, were submitted, and accounts were passed for payment.

FRANCIS M. SYME, Registrar.

REVIEWS.

The Rôle of Modern Dietetics in the Causation of Disease, by J. Sim Wallace, M.D., B.Sc., L.D.S., Hon. Dental Surgeon, West End Hospital for Nervous Diseases, and Assistant Dental Surgeon, National Dental Hospital, London. Published by Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, London, W., 1905.

This small book of nearly ninety pages is full of interest to the dentist of to-day, as well as the medical practitioner, for whom only it was written. It is a collection of essays which originally appeared in the British medical and dental journals. It is to be hoped that the subject matter may soon reach intelligent parents, as the ultimate object of this work is the prevention of disease, and this is as much the concern of parents as of medical practitioners. In this direction the dentist could also help, while he could benefit himself by a careful study of these pages. Caries and irregularities of the teeth, causing insufficient mastication, the results of which, such as adenoids, indigestion, &c., are so common in everyday life, that most of us are apt to accept them as a matter of course; when the amount of suffering and financial loss these lesions entail in the community is realised, then the urgent necessity of finding some means of prevention is recognised. Dr. Wallace writes convincingly on these subjects. He thinks food ought to be more fibrous, and after children have cut their deciduous teeth there should be no "soft pap, liquid extracts or refined foods." This subject is well worthy of consideration by dentists as well as medical men. The book is full of interest, and will well repay perusal.

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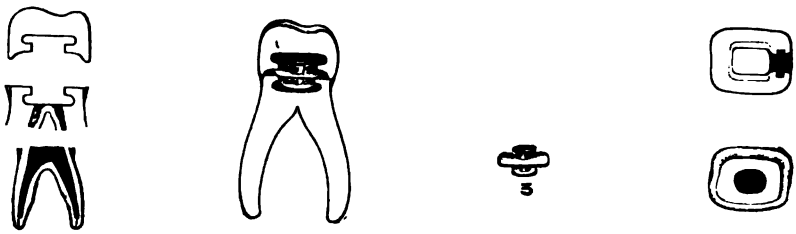

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EDITORIAL.

The holding of dental conventions and congresses seems to have a great charm and attraction for those who have the time and opportunity of attending them. There can be no doubt that they are very beneficial from a technical point of view, more especially when the programme provided combines good literary merit with a number of carefully prepared and instructive clinical demonstrations. They are perhaps more useful from the ethical and social aspect, by bringing together those following the same calling who feel somewhat diffident and apathetic in meeting for the interchange of thought and ideas on the various points of interest which occur in daily practice, or for discussion and organisation of general interests, political and otherwise, relating to the maintenance of the status and progress of their profession.

At this juncture, inter-State reciprocity is agitating some minds, but in the United States, where these conventions mainly originated and where they have such a popular vogue, even there the

development of a scheme of inter-State reciprocity—such as would satisfy the leading minds, and as would be acceptable to the majority and promote their vested interests in such a populous country—appears to hang fire, and lack the cohesion necessary for united and concerted action. That is to say, if we read their journals aright. One writer says:—"For the last twenty years the interchange of dental licences has been the apparent goal upon which the dental profession as a whole has looked forward to with longing eyes, but, alas, for all one can gather from the remnants along the trail after the departure from the City of Conventions (St. Louis, 1904) of the illustrious bodies that there and then did meet, we are still looking, and the goal is apparently as far away as ever." There are many points in controversy remaining unsettled; another writer, also a prominent office-bearer, says:—"You may not, perhaps, have discovered it yet, but the chief business at the present time of the examiners of this country (America), instead of being the introduction of reciprocity, is the insistence that dental colleges shall honestly carry out their pledges to the public. . . . The placing of the word 'reciprocity' on any statute book at this time would, in my judgment, be unwise and injurious to the interests of the dental profession."

From these expressions of opinion, it would seem that many in America recognise, as a first principle towards reciprocity, that an equal standard in the preliminary as well as in the professional examination should be required. These principles, we feel sure, will be endorsed by every one who is, or has been, engaged in the teaching and training of students.

In New Zealand, we notice in their last journal to hand, a very praiseworthy effort is being made to set their own house in order by establishing a full scheme of dental education and qualification, mainly after the English system, in connection with the University of New Zealand. Arrangements are proposed whereby students, after passing their preliminary examination, could be apprenticed to the dental departments, to be organised at the hospitals in Auckland, Wellington, Christchurch and Dunedin, for two years, during which they would get instruction and practical work, and also attend University classes in chemistry and physics for their

first examinations. The third and fourth years to be spent in Dunedin, where lectures, classes and hospital practice would be carried on at the dental and medical schools, and examinations held in conjunction with the University. The desire is to make the course colonial, and not provincial, in character, and a resultant qualification that would ultimately be recognised throughout the Empire. The matter is to be decided at a conference of the New Zealand Dental Association, to be held in Dunedin early in January, 1906. Already the Government is to be asked to assist in this national movement by a pound for pound subsidy to their subscriptions, and an annual grant of £1200 for five years for the carrying on of the dental school by the University of New Zealand. We heartily wish our friends every success. And especially in the struggle with unregistered men clamouring and petitioning Parliament to amend the Dental Act, and grant them the privilege of registration, while the Act already reveals that these same petitioners are eligible to sit for examination.

In Victoria, where the system of education is affiliated to the University of Melbourne, and the four years' course has become a matter of routine, strenuous efforts are being made to give greater facilities to students, and make the scheme more thorough and complete. In connection therewith we are pleased to record that during the month the Council has completed the purchase of a piece of land in the city for building a permanent home, so much desired and long thought of, for the Melbourne Dental Hospital and the Australian College of Dentistry.

The site is an admirable one in many ways, and, it is satisfactory to know, it has been secured at a fair and reasonable price. It is very favourably situated, having a frontage of 80 feet to Spring Street, overlooking the Parliament Gardens, and a frontage of 119 feet to Little Bourke Street, thereby securing an uninterrupted southerly light, without the objectionable glare which is persistent on our sunny days. The building will be very central, trams on two routes passing the door, while trams on four other routes from distant suburbs are within four minutes' walk, making it convenient and easily accessible to lecturers, students and patients alike. Access to the University can be had for one fare, which means a great saving of time to all concerned.

The Council are to be congratulated on their efforts. It now remains to provide the funds, and proceed as speedily as possible with the erection of the building.

Without in any way anticipating the Council in the action it is proposed to take, we venture the opinion that a grand opportunity presents itself to the dental profession, and all who desire the accomplishment of the best interests for the advancement of the practice of dentistry in the State of Victoria, to come forward and give a helping hand. Success will be assured by all promptly coming forward with contributions both large and small to the Building Fund. The Council will have to borrow some portion of the money required, and, while the freehold and building form a substantial security for the loan, it is very desirable that a goodly portion of the cost should be contributed by the time the building is opened. It is on this account we appeal to the dentists in the first place to help forward these strenuous efforts to a successful issue.

We think, also, that the public should have the privilege of contributing to the fund, as the hospital already is largely made use of, and affords dental relief to great numbers. The records of the Hospital Sunday Fund show that one-fifth of the population receive efficient charitable relief at our hospitals, among which the Melbourne Dental Hospital takes its place and contributes its quota of help.

While the Council appreciates and thanks the State Government for the offer of a hospital site on the St. Kilda Road, it is considered the right course has been followed in securing a freehold more centrally situated. We think the efforts put forth make a strong claim on the Government for a grant in aid. We make this statement without prejudice, or even comparison with any of the newly-organised charitable institutions. It must be remembered that the Dental Hospital was first established in 1890, and it has consistently, year by year, continued its helpful work without having been once dependent in any way on Government aid. Our present popular State Premier, according to common report, is very practical to those persons and organisations who help themselves, and who rely mainly on their own exertions before they appeal to him for Government help. The work already accom-

plished at the Hospital, and the untiring efforts of those who control it, show good and sufficient grounds for the Premier to respond with a substantial grant in aid of the building fund.

The importance of good teeth does not come under the ken of our paternal Government; and some facts relating thereto will surprise many. It pays the Government of the United Kingdom to spend £2920 a year in salaries to look after the teeth of picked Army men. The *British Dental Journal* says: "Where the scheme for the Army ought to start is: The real solution of the whole question lies in the appointment of dental surgeons to those schools and institutions from which our recruits are drawn." In 1892, under the London School Board, dental surgeons were appointed and paid to attend the children in a large number of Board schools.

With these examples before us, have we not a great claim on the Government to help our institution, in the same liberal manner as they subsidise other educational and charitable institutions?

VICTORIA.

THE DENTAL BOARD OF VICTORIA.

ANNUAL EXAMINATIONS.

NOTICE is hereby given that the Examinations for the various years of the course for the Diploma of Licentiate of Dental Surgery will commence on Tuesday, 14th November. The written examinations will be held at the University of Melbourne.

Sine Curriculo Examination.

The Examination will commence on Wednesday, 8th November. The written examinations will be held at the Independent Hall, Collins Street, Melbourne.

By Order of the Board,

Ernest Joske, Registrar.

THE ODONTOLOGICAL SOCIETY OF VICTORIA.

The ordinary monthly meeting of the Society was held at the Vienna Cafe, Collins Street, on Tuesday evening, the 26th September, 1905, at 8 o'clock.

The President (Mr. T. F. W. Hall) in the chair.

There was a good attendance of members, and a number of visitors.

The minutes of last meeting were read and confirmed.

Letters of apology were received from Mr. A. R. Clarke, Mr. E. Carter, Dr. Mollison, Dr. Nihill, and Dr. Hewlett, who much regretted they were unable to attend.

The CHAIRMAN then introduced Dr. Alfred Burne, D.D.S., of Sydney, and said: "Many of you know Dr. Burne, but to those who are not acquainted with him I would like to say that he is a leading practitioner in Sydney, one of the founders of the Odontological Society of New South Wales, and it is in a very great measure owing to him that that State possesses a Dental Act and a Dental Board. As you are aware, he was unanimously appointed our representative to the National Dental Congress, recently held at St. Louis. The Congress was attended by many eminent dentists from all parts of the world, and Dr. Burne very ably maintained the honour of the Odontological Societies of New South Wales and of Victoria. I may mention that he was third among the visiting delegates in order of introduction to the Congress, a very high compliment, both to Dr. Burne and the Societies he so ably represented. Some American paper said that Dr. Burne hailed from the State of Victoria, in New South Wales. I think it is necessary that someone should show them a little about the geography of this comparatively young country, when perhaps fewer mistakes will be made about Australia in future. Dr. Burne visited Melbourne a little more than a year ago, and some of us had the pleasure of meeting him, and found that he was an enthusiastic dentist. I want to state that he recognises there are other up-to-date men, and does not wish you to think that he has come here to teach, but to have a little chat about his experience and recent visit to St. Louis.

DR BURNE: Mr. President and gentlemen,—It gives me very great pleasure to be present. I must confess that I appear before you to-night with fear and trembling, because, after having the pleasure of hearing of what Dr. Burne was going to do, I tried to prevail upon the captains of some of the sea-going steamers to take me back to the little State of New South Wales. Please do not imagine that I come as a teacher, or to show you that you know nothing about your work.

Your President was kind enough to say I had done a little for the advancement of dentistry in New South Wales. The Dental Bill was framed, and the Dental Association formed for purely political purposes. I had the honour of being President from its inception, until we had gained our point, viz., the passing by Parliament of a Dental Act. At the passing of the Dental Act we were admitting everybody. We realised that if there was one man more than another we had to get in, it was the outside man. He was working along the same lines, and very much with the aid of the labour party, and we recognised that the difficulty in passing the Bill would be very great without their inclusion. The Bill was not perfect by a long way, but it was the first instalment, and was received with some satisfaction, as a beginning. A Dental Board was instituted, and the Government who selected the first Board honoured me by giving me a position on it. We all recognised our principal work was to administer the Act as we found it.

Now, with regard to my recent trip to America, first I would like to say that there is a feeling of good fellowship prevailing throughout the dental profession over there. This good feeling, I can say, is extended to the profession in this country. There every door is unlocked, and no man has any secrets. If a man finds that he drops, either by careful study or chance, upon a new feature, he is never happy until he can place it before other members of the profession.

One thing that particularly struck me was this lovely Bohemian feeling. I remember a little entertainment given to the members of the "Delta Sigma Delta," in St. Louis. It was a very hot night, and about 300 of the boys sat down to supper after the business was over. I never saw such a sight, and would

not have missed seeing it for anything in the world. Coats, etc., were discarded, and they let themselves go for what the Yankees call "a real good time." There was great enthusiasm, as the various toasts were proposed and honoured. Yet, gentlemen, through the whole of that entertainment there was not a word or a suggestion which your wife, daughter or sister might not have participated in. I may say that I am indebted to a great number of gentlemen, some of whose names I will mention to-night, for the good-natured assistance and for the amount of kindness absolutely showered upon me.

I had the pleasure of representing New South Wales in a Dental Congress in 1893, at Chicago, and thus I was almost better known there than I am in my own country. At the Congress at St. Louis last year, my election as Honorary President was an honour to the Odontological Societies of Victoria and of New South Wales. (Cheers.) I had also held the position of Chairman of the Foreign Advisory Board of the American National Association of Dental Faculties for Australia and New Zealand.

The first exhibit I wish to bring under your notice is very old. It is a set of teeth carved in ivory, with natural teeth fixed, and I think you will say there is not one out of fifty who would show the necessary talent now to do such work. The set was made close on a hundred years ago. This bone-work may be called the dentistry of the past. With this I send round a specimen of work which has a peculiar attraction for me, inasmuch as I con-consider it the most artistic of all work—that is, an upper denture, mounted with the porcelain continuous gum. Both are typical, being excellent illustrations of our art in the past and in the present.

A man getting through his College course, and believing that he is a full-fledged dentist, and that his work is done, when his student days are over, absolutely makes the biggest mistake of his life. I generally address a body of dentists as fellow-students.

Some time ago I read in a report of one of the societies in Chicago that Dr. Johnson, well known as the author of that excellent work on Operative Dentistry, exhibited a number of specimens illustrating methods of filling teeth, and explaining

his system of extension for prevention, etc.; and I wrote back to the doctor, to say that I envied the boys who could look at these things, as I simply had to content myself with the cuts when illustrated, and make out my own theory. The return mail brought me a letter, and this box, from Dr. Johnson, who had in his spare time cut these cavities. I have much pleasure in handing round these specimens for your inspection. I need hardly say that this exhibit has excited great interest in Queensland and in New South Wales.

I will just for a moment or two touch on the up-to-date Porcelain Work. If there is one subject which to my mind is more important than another, it is Porcelain. The man who does not take up porcelain is going to be left behind. I think it is most outrageous to disfigure a woman's face by using gold crowns where they can be seen. I think the mission of art is to conceal art. We have all kinds and descriptions of porcelain crowns, and the one I am going to pass round now is without a band, and while I use bands sometimes I am honest enough to say it is the exception. I have teeth which have been pivotted with gutta percha for many years, and I make this statement, which I presume will go abroad, that I have never seen decay under gutta percha—it is to my mind absolutely impossible. Using cement is another matter, though why any man in his senses will start to place in posts with cement I do not know.

To explain how the tooth which I now submit for inspection is made. For your posts I presume you always use platinum-iridium wire; this is a diatoric bicuspid, and you will see it absolutely fills the bill with little or no trouble. The post is left standing half-way between the platinum base and the tooth. You then fit the diatoric tooth to the metal, and then you have to fit the post, and with a thin carborundum wheel cut the tooth half-way down from the back, to give space for packing (illustration on model). Having done that, you mix and pack with Close's Porcelain body, and bake. If the tooth is not broad enough to fill the space, or any difficulty occurs from shrinkage, pack in more body and try a second baking. You bake and fuse a second amount necessary to produce the required result, and

I think, by using this method, gentlemen, you will have to admit you would have some difficulty in getting anything more artistic-looking than the tooth I have passed round and described to you.

Most of you who have worked the different bodies have found a very great difficulty in knowing exactly when they are baked enough. All bodies lose their colour when over-heated, and, becoming porous, are absolutely useless. Dr. Price found that a matter easily controlled by using a Pyrometer. On the disc of this instrument the name of every known maker of Bodies is attached, and, as you move a button on, you get the different heat required. In this way there is no straining of the eyes from the ill-effects of the white light, and you know exactly that what you do is perfect. I saw this demonstrated in St. Louis, and was so charmed with the results achieved, that I am to-day the happy possessor of a Pyrometer. This is a mere bagatelle, costs £33; every dentist should have one. Dr. Le Cron, of St. Louis, an accomplished exponent of inlay work to-day, hit on an idea which I now present to you and those of you who are using electric furnaces will realise that this little thing in itself is worth your coming to this meeting for. Dr. Le Cron found that an alloy of platinum and gold in certain proportions would give exactly the same result as Price's Pyrometer with absolutely little or no cost. He made his little pieces out of talc, which is very readily cut. If you take and warm the piece up in your furnace until it attains a certain heat, you can go on using them for years. It is like a cup, hollowed at the bottom, and in the top there is a little slot, and in this slot a little piece of alloy is placed, and when that metal melts and drops through from the top into the receptacle below, you get exactly the same result as you get with the Pyrometer. Dr. Le Cron is the inventor of the ferruled instrument by which you absorb all moisture, by drawing to the surface the water contained in the body you are using at the time. I may say I prefer to use an electric furnace, as with it I get better results.

I regret that I have to announce the fact that I have mislaid the formula of the alloys for the different bodies, but I will arrange with our friend, Mr. Iliffe, to distribute them later on.

Amongst the many exhibits at the Congress I do not think that any excited more attraction than the Clinic describing the making of a Porcelain Jacket Tooth. This is a jacket which is made entirely

of porcelain. I have had the pleasure of working on this since my return, and I may say that the results have surprised me. I will try to explain this. The tooth to be covered is cut down all round, leaving a shoulder just below the margin of the gum. You then take and shorten the tooth, and fit round that a piece of platinum, the same gauge as you use for your inlays. A piece of wire is then passed round at the base, and then the platinum is worked all round. Having succeeded in getting a perfect matrix, you take a vulcanite tooth, and I know of no teeth which in any way approach the Consolidated Company's teeth for this purpose. You cut this away very thin, so much so that you can nearly see through it, but leave portions of it instead of cutting that off with the carborundum wheel, so (illustrating on model). Then, with a piece of copper and glycerine, you work this right out. Now, when you have fitted that, you place it on with a piece of wax; with the pliers you hold the two together, and then detach the wax and start to build with the body all round. The body I use is one made from an American diatoric tooth. If a tooth is placed in the bunsen flame until it gets perfectly white, and is then dropped into cold water, in two or three minutes it will present a powder absolutely the same fineness as flour. You take your matrix, and fill in with the body exactly the same as you would do with an inlay. It is surprising that so many folk do not recognise the fact that an inlay which has been placed in water a few minutes presents no difficulties in stripping off the platinum.

While this is being handed round, I should like to give you an idea for getting impressions of large cavities for Porcelain crowns and inlays. Dr. Taggart, in the May number of the *Dental Review*, makes this statement: "For ten years I have never used a gold crown." I think Dr. Taggart to-day is recognised as one of the leaders in porcelain work. He is a born artist. I remember, on one occasion, seeing the restoration of two central incisors, I was unable to tell where the tooth proper left off and the porcelain began. I also saw large restorations in molars, and the Doctor was good enough to allow me to inspect his work. I asked the patient how long this restoration had been done, and she replied about seven years. I will explain a very clever method by which he produces absolutely faultless impressions from which to work. In a small

cavity I think there can be no doubt that the proper thing is to burnish, but when it is very large and difficult, then I think the suggestion given by the Doctor is certainly the best I have seen. Let me describe: I have in this model a large cavity prepared, to get a separation if necessary, Dr. Taggart places between the teeth a piece of brass plate, about No. 7 gauge; he then places his gutta percha in the cavity, and, with a heavy instrument, works that down under another piece of brass plate. Sufficient time is allowed, either by the use of ice or any other medium, to get that perfectly cool, then it is withdrawn. Now you all know that, when you find a thing is not just what you wanted, it is very annoying, because it has taken up a large amount of your time, and you have to start over again. Now the Doctor takes it out, and, covering with a quick-setting phosphate cement, it is placed back again, the cavity having been first vaselined. The result, when taken out, I think you will admit, is absolutely perfect.

Mr. ILIFFE: What kind of gutta percha do you use?

Dr. BURNE: Pink base plate, always. One of the ideas that struck me as being very sensible was the matter of gold inlays, and it is just a question whether I am going to take up your time describing gold inlays. (Cries of "Please go on.") I am going to pass round a fair-sized inlay with platinum attached, and which you will see is in no way distorted. The matter of gold inlays was first suggested, I believe, by Dr. Swazy or Dr. Ames (I am doubtful which). It is a point I never could understand, why we have not had more of these gold inlays, Dr. Ames showing me a record of excellent work of 14 years' standing. Dr. J. E. Keefe and Dr. L. P. Haskell, who conduct a Post-Graduate College in Chicago—where you can get through in a month, everything up-to-date—were good enough to ask me to come down one afternoon. Their system is to have no more than four or five pupils at one time, so that all can see and understand. The Doctor, seated in his chair, with a board spread over and resting on the arms, and with his little Bunsen burner, &c., demonstrated to me how quickly this work could be done. I afterwards had the pleasure of demonstrating this to three or four friends, and your Secretary can tell you all about it, so that any of you not quite up in this work can worry him.

There are two methods, one hollow, the other solid. I do not

see why any man should take more than thirty minutes over one of these. Just think of the back-aches it is going to save. I have seen teeth that were absolutely riddled, and yet they have been preserved for fourteen years. I will describe as briefly as possible the second method of forming a solid gold inlay. The matrix is made of platinum. Having attained perfect adaptation of the platinum, you then start and use a very old friend of ours—Watt's Crystal Gold—and you half-fill the tooth. Now here is where one danger comes along: If you imagine you are filling a tooth, and use that pressure necessary to condense, you will get into trouble, as the solder cannot get through. The matrix filled with gold is held over the flame until the solder is absorbed. For this purpose, I use Dr. Trueman's 22-carat solder. Fill up again, using more solder. You have left a very fine margin of platinum. When the inlay in placed into position with cement, it is burnished into absolute contact.

I want to say something about Dr. Trueman's 22-carat solder. I use it for crown and bridge work and gold inlays. If you are using an 18-carat plate, it sets off the plate; it flows just like water. I have pleasure in giving you the formula through our friend, Mr. Iliffe. Let me first say that this solder cannot be used on old work, but in cases such as the inlay which we are passing round now, you get a gold solder which it is impossible to discover.

Dr. Dunn, of Chicago, was good enough to send me one of his cervical clamps, and, to my mind, it certainly is the very best clamp of the kind on the market. The only trouble is that you bend back the points, using bibulous paper. In that way you can get an adaptation without in any way injuring the gum margin.

I desire to call your attention to a tray (as a certain gentleman says, "a little thing of my own"), a Sectional Tray for taking difficult impressions where the natural teeth are standing irregularly in plaster of paris. The difficulty we all meet with in practice is the taking of a perfect impression, and, while some cling to the different compositions on the market, I claim that it is absolutely impossible to take a perfect model with them, and the more difficult the case, just so much more is it necessary that plaster should be used. (The impression trays were handed round for inspection.)

When in St. Louis, Dr. Edward H. Angle was good enough to in-

vite me to be present to hear his lectures. The Doctor simplified the whole subject. He only takes a certain number of students, and they have to take the casts. They had plaster impressions of the mouth broken into as many as twenty-five pieces, yet they got them all into place. The idea occurred to me that the difficulty could be overcome by making a sectional tray. This tray is composed of five or six different parts. The outer tray is well vaselined, and, having taken your model in plaster, you dig in between, with a fine instrument, starting here (showing on model); prize that right round; that breaks away where you want it, and when you have detached and replaced sections in the tray, you have an absolutely perfect model. Here is a small tray which is invaluable (showing tray) for small cases and crown and bridge work. Here let me say that if the teeth are very long, and there is a large mass of plaster between them, you can get better results by placing between the sections a thin piece of writing paper, which has also been vaselined. Now, it is an easy matter when the plaster is set, with your knife to cut between the two sections, when the impression comes away in two or more parts, which you place together accurately before pruning the model. I need hardly say what the result is.

Mr. Iliffe: Gentlemen, you can easily make an adaptation yourself from an ordinary tray, by taking a model of it, and striking up the sections and soldering. You can readily make it in German silver, and, when polished, it will be found satisfactory and easy of accomplishment.

Dr. Burne: The model now exhibited illustrates the manner of supplying the loss of a canine by attachment of the staple crown to the first bicuspid. You will observe that by this method no gold is shown.

This (exhibiting a sample) is Hood's new waxable vulcanite, which has been introduced in the States, and no wax is used. You simply take this waxable vulcanite and work up your denture as you would in using wax.

Now, gentlemen, just one moment and I am finished. The subject of removable bridge work is one that is very dear to my heart, but I do not think the time will permit of my dealing with it on this occasion, but, with your leave, I will just give you a rough idea of the method I adopt in making seamless crowns. I con-

tend that a seamless crown, if properly made, is in every way far better than the crown with a band and the cusps soldered. I omitted to say, when speaking of that solder, that I never fill a seamless, or any other crown, with solder, but I do this: Having struck up my crown, and got it as perfect as I can, I then strike a small piece that fits in the cusps, and use the solder according to formula. When the cusps are pronounced you know the difficulty. Here is a practical crown outfit, manufactured by Ransome & Randolph, of Ohio. It is worked in the following way: I fit to the tooth a band—and for that purpose I have quite a number of seamless bands that the boys strike up in spare time. Having fitted that band, I then take the bite, and, having transferred that, it is simply a matter of contouring cusps and band. It is always wise to cut it so (illustrating), so that you can get the sides well burnished against the opposing teeth. I then place the plaster of paris and press down, and then have exactly what I wanted to complete the crown. That band is placed on to this device, which you will readily recognise is "Mellott's," and this piece of steel is placed so (illustrating) over the teeth. Now the fusible metal has to be poured slowly, or else it will blow out every time, and the plan I adopt is to hold my tooth in the copper ferrule over the spirit lamp, until I know there is no steam left. On taking it out of that tray it is easily forced, and, placing a small chisel here (showing on model), it comes away immediately, the result being a perfect matrix in which we are going to form the crown.

Dr. Burne here showed an apparatus for backing teeth in crown and bridge work, and also another crown apparatus manufactured in San Francisco.

After explaining the method of working these devices, the Doctor concluded his address by thanking the members for the attention they had given him, and trusted that, at some future time, he would have the opportunity of addressing the Society on the subject of removable bridge work—a subject he had a very great admiration for.

In reply to a question, Dr. Burne said that, in all his porcelain work where high fusion was required, he used 25 per cent. of platinum and 75 per cent. of gold, used in this manner:—Use the scraps of platinum, etc. In melting, do not expect to get the platinum mixed at first, because it is utterly impossible, but if you

pass the ingot through the flatting mills until it cannot come down any more, double it, and mill again, using a little vaseline to prevent sticking: double again, and, after again milling, you will have something akin to tissue paper, and, by using a fair quantity of borax, you will have little or no trouble melting or fusing an absolute mix.

The business of the meeting being concluded, refreshments were served. The President called upon Mr. John Iliffe to propose Dr. Burne's health, and also to make a small presentation.

Mr. ILIFFE, who was received with cheers, said:—Mr. President and gentlemen, I have very great pleasure in proposing the health of Dr. Burne, and conveying to him our hearty thanks for his exhaustive and interesting description of various novelties and some things which had grown on him in his practice during a number of years. At the same time, I have much pleasure in making this small presentation on behalf of the Odontological Society of Victoria. I beg my good friend, Dr. Burne, to understand that it by no means fully expresses how much we are obliged to him for coming to Melbourne and meeting us for the first time as a Society, neither does it in any way express our feelings for the manner in which he acted as our delegate at the Congress in St. Louis. I should say that we could better testify our appreciation by taking these hints he has given us to-night home and working them up in our individual practices. Dr. Burne, I beg you to accept this gold sovereign purse as a token of esteem, and as a memento of your visit to us, and I beg to assure you we are very grateful for what you have done for dentistry. I may say, gentlemen, that the purse is engraved with the monogram of the Society, encircling the words, "To Alfred Burne, D.D.S., 26/9/'05."

Dr. BURNE then rose, and said:—Mr. President, Mr. Iliffe, and gentlemen.—I have some difficulty in finding words to express to you my feeling of gratitude for the way you have received me. I feel, Mr. President, that I have made my debut with a fair amount of success, and that to-morrow I shall carry away with me the good feeling of all the members of the Society, and if in any way I have been the means of entertaining you, I have been more than repaid by the very handsome present you have made me. I appreciate it very much indeed. I was as much taken by surprise to-night as I was in Brisbane by the boys there presenting me

with a gold matchbox. Now, gentlemen, I have some uneasiness about that sovereign purse, but I had no doubt about the matchbox. The one I could easily keep filled, but the purse is another matter. Now, gentlemen, I am not going to lecture, but I want to say that the success of any Society, and particularly an Odontological Society, is made to a very large extent by a good Bohemian feeling. When I landed in San Francisco, my dear old friend, Dr. Harry Carlton, the Dean of the College there, said: "We have a banquet to-night; you are just in time. I have an invitation." Following the custom in America, my wife and daughter were included in that invitation. It was one of the most pleasant evenings I have ever spent. After the banquet there were songs, recitations, and so forth. That, I think, is the right way to do things. I may say, Mr. President, I instituted the idea in the Odontological Society of New South Wales, which it may probably be worth your while thinking over. A number of the members live out of town, and we made it a rule at all events for the Council to meet and have dinner together. Most of you have to stop in town when your meeting takes place, and if you had dinner together beforehand, friendships would be cemented and ideas thrashed out. If at any time you have an opportunity of visiting sunny New South Wales, believe me there is no door will open and the occupant greet you with greater warmth, placing at your disposal time and opportunity for clinical work, than your humble servant. I will not detain you any longer, but would just say once more how very much obliged I am, and if you will at some future time put up with me again, I shall be very much charmed to put in an appearance at the Odontological Society of Victoria.

Mr. Cooper, Vice-President, proposed the health of the visitors, including the names of Dr. McDonald, D.D.S., of Brisbane, and Mr. Chaim, of Sydney, stating it gave much pleasure to see them there that night, and hoping to see them again on some future occasion.

Mr. Chaim rose and said: I beg to thank you sincerely for drinking the health of the visiting dentists. This is my first visit to your Society meetings. I assure you I am very pleased to see such a good attendance of dentists in the Odontological Society

of Melbourne. Dr. Burne and myself are very old friends, having worked together for over 25 years in all the Societies in New South Wales. I again thank you for the very pleasant meeting we have had.

The HON. SEC., on rising to propose a hearty vote of thanks to Dr. Burne, said that he much appreciated the opportunity of so doing. He had just returned from a short visit to Sydney, where he had been on several occasions the guest of Dr. Burne. That gentleman had not only received him cordially, but had taken the speaker into the heart of his family, and made him feel absolutely at home. Not only that, but Dr. Burne had deferred appointments with patients, that he might give several clinics and the benefit of his great knowledge in dentistry to him. Such kindness he (Mr. Elvins) keenly appreciated, and felt that he owed a certain obligation to the Society, as no doubt Dr. Burne was considerably prompted to act in the kind way he did, by knowing that his visitor was the Society's Hon. Sec. On concluding his remarks, Mr. Elvins said, if in order, he would like to propose Dr. Burne a life hon. member of the Odontological Society of Victoria.

Mr. ILIFFE cordially seconded the motion. He thought no truer compliment could be paid to our guest.

The motion was carried unanimously, with great acclamation.

The PRESIDENT notified Dr. Burne that he had been elected a life hon. member of the Society, and Dr. Burne suitably responded.

During the evening songs were rendered by Messrs. Horace Stevens and McDowall, and Mr. Harper Bell creditably rendered a flute solo. These items were much appreciated. It was unanimously considered that a very pleasant and instructive evening had been enjoyed.

DISCS AND STRIPS—SOAP ON.—In separating teeth, or cutting down fillings with sandpaper discs, first run both sides against a piece of dry soap. You will be surprised to see how nicely they will go between the teeth, and how much better they will cut the gold. Sandpaper and emery strips treated in the same way will cut better, and never catch or tear the dam. It is also more pleasant for the patient.

COLLEGE NOTES.

Things are presenting rather a quiet appearance at the Hospital at present, as far as students are concerned, owing to the fact that the annual examinations are near at hand.

A curious case presented itself at the Melbourne Dental Hospital recently. A woman ætat. fifty-five, called for advice re artificial teeth, and incidentally remarked that "she could take her natural teeth out and replace them when she pleased." Suiting the action to the words, she immediately removed the second lower bicuspid from its socket, and proudly exhibited it to a circle of interested students. On examination, the socket was found devoid of membrane, exposing the bare bone. All advice to have the tooth permanently removed and the socket treated to prevent necrosis was of no avail, the patient saying that she had had several similar teeth, and suffered no ill results.

Dental Students' Society.

The usual monthly meeting of the Dental Students' Society was held in the Lecture Hall, Friday evening, Oct. 20th. In the unavoidable absence of the President, Mr. D. Austin, Vice-President, occupied the chair.

Mr. Bindley, one of our fourth year men, read a short but very interesting paper on "Metal Splints," and certainly handled the subject in a masterly way. He was heartily applauded at its termination. The chairman, in moving a vote of thanks, said he was extremely sorry there was so small an attendance. It was to be expected, as members were not inclined to leave their studies when the examinations were so close at hand.

This was the final meeting of the Society for the 1905 session, and we can safely lay claim to having had the most successful year in the short history of the Society. The meetings, on the whole, have been very well attended, and the members' roll has increased considerably, though there is still room for more improvement in that direction.

The hat bands and caps in the colours of the Society are to arrive this week, and, from the sample of material obtained, should look very well indeed.

The annual dinner of the Society will be held about the first week in December, and the Committee are desirous of making this dinner the best yet held, and request that all past students of the Australian College of Dentistry to make an effort to be present, so that a good reunion of past and present students may result.

QUEENSLAND.

THE DENTAL BOARD OF QUEENSLAND.

The general meeting of the Board was held at 39 Adelaide St., Brisbane, on Tuesday, Oct. 3rd, 1905.

There were present:—The President (Mr. D. R. Eden), Dr. Hopkins, Dr. Brockway, Mr. E. F. Hughes, Mr. F. A. Huet, and Mr. H. S. F. Moran.

The minutes of the last general meeting were read and confirmed.

A satisfactory credit balance was reported by the Hon. Treasurer.

Accounts were passed for payment.

Outward and inward correspondence was read and dealt with, and replies directed to be sent.

The new bye-laws, dealing with the vacation of the office of member of the Board through non-attendance or resignation, were passed and ordered to be sent on to the Minister for approval by the Governor-in-Council.

The question of the amendment of the Act and of the Educational Regulations was discussed, sub-committees appointed to go into the matters, and were instructed to report to a subsequent meeting of the Board.

T. B. Hunter, Registrar.

THE ODONTOLOGICAL SOCIETY OF QUEENSLAND.

Continuation of Report of Annual Meeting held in the rooms of Dr. Gibson, Queen Street, Brisbane, on August 9th and 10th, from page 307, No. 9.

A paper was then read on—

Universal Dental Federation and Australian Interstate Reciprocity.

BY CHARLES HALL (SYDNEY).

Outside of a studious contemplation of the technical problems which day by day beset us as practitioners of a cult which is essentially progressive, no consideration so deeply affects our wel-

fare as that embraced in the terms "Federation" and "Reciprocity."

A nation lusty in its youth is prone to be afflicted with a too circumscribed vision and an undue standard of self-appraisement, that may be excusable in the general walks of life, in which the mind, untrained to logical analysis, predominates; but it should not be possible to apply the stigma to the professional ranks. Intellectual training, mental culture, liberalises and broadens the mind, for to the cultured mind narrowness of view is, or ought to be, intensely repugnant. The Principal of the Aberdeen University put the position excellently not long ago, in the course of his address of welcome to the British Dental Association, thus: "There can be nothing more irrational than professional jealousies —the jealousy of one profession towards others, and the jealousies of one section of a profession against other sections. The liberal mind is impatient of all that is petty and narrow. It realises the catholicity and the identity of feeling that is bent on unity for the sake of unity, but always with a view to usefulness."

The narrow view, in other words, flourishes under conditions of smug complacency, while the liberal mind recognises the vastness of the world of knowledge and action; in comparison with which the learning and skill of the tiny quarter of the globe which we consider ours is insignificant. The natural craving of the healthy and liberal student is to reach out far into the world of knowledge, and endeavour to draw it closer to him, and work out his life's existence as an integral part of it; to feel that he is living in it to such good effect that it knows and recognises him. What is true of the individual is equally true of the community; what tends to limit the growth of one will operate against the expansion of the other.

Hitherto the dentists of Australasia have not, as a community, fostered the broader view, but, on the contrary, have been insular in tendency. But now, from both at home and abroad, there is being driven in upon us a recognition of the incalculable value of federation in our political interests, and reciprocal arrangements in our interstate professional dealings. A few years ago the realisation of such a scheme of dental unity may have appeared as the dream of a visionary, but time moves rapidly when men desire advancement and development, and to-day the scheme is not

only brought out of Utopia, but the advance towards achievement has been so pronounced that the very details of it have to a certain extent presented themselves for discussion.

Modern dentistry has moved with fevered haste, from the formation of the first American Society of Dental Surgery, in 1840 (I hope the date is correct), to the creation of the Federation Dentaire Internationale at the Paris Congress of 1900, when 1200 delegates from all parts of the world were present. The object of the former Society was stated to be "the advance of science by free communication and interchange of sentiment," and to that extent, perhaps somewhat guardedly, federation and reciprocity were sought. Those who have interested themselves in the political aspect of American dental progress are aware that the achievement of this object was not—perhaps we might say, is not—an ideal success, because State and local jealousies prevailed there, as they do here, only too assertively; and it is just that which we, as a young community, should do our utmost to eradicate.

Considering the previous secrecy and rigid exclusiveness of the dental ranks, and the tremendous handicap under which the liberal minds in the profession laboured, the marvel is not that the Americans made so many basic errors, but that the professional societies flourished as they did. To-day the United States has some 60 dental schools and colleges, and very many dental societies, of which the actual number is not instantly available. Great Britain has her 12 or 15 schools, and Europe has also her quota. The very number of these organisations causes a healthy spirit of competitive research, which we, in common with the rest of the world, are able to enjoy the results of.

The eastern and western world thus furnished, it is meet that we in Australia should do our utmost to further dental education and original conceptions by the consistent founding of dental societies. Let us also endeavour to profit by the experiences of our friends abroad, and in our legistlation minimise the inequalities in the various dental Acts so that a genuine homogeneity may exist here such as the leading dental publicists of other lands are advocating abroad. That the spirit of federation and reciprocity does heartily prevail there we have abundant proof in recent years.

The Amercans were first in the field to set their house in order, and rapid progress was made in harmonising the legislation of several of the more liberal States. The spirit of reform and reciprocity grew apace, and in effect became contagious. Then came the great achievement of 1900, when 1200 congressionists from every part of the world met at Paris, and gave bodily form to the hopes and aspirations of the grand liberality of mind which we hope may be the pride of our profession. The Federation Dentaire Internationale was founded, and, little as we may at present recognise it here, a bond of brotherhood, encompassing all the world, was forged. Those who would ignore its existence and those who doubt its power for good, are alike doomed to enter its friendly embraces ere long. The federation of the dentists of the world is moving on in inexorable fashion, universal reciprocity is in its train, lagging, perhaps—stifled somewhat by so-called State interests—but its movement is perceptibly forward, and the last to fall into line will be until then the poorer.

Let us just glance at some of the stages of the F.D.I. as they are enumerated by the Hon. President, Dr. Charles Godon, in his opening address last year. Referring to the session which was held in Stockholm, he says:—"In the midst of discussion, which had in view the planning of an International dental curriculum, and the determining of the best conditions under which public dental service should be carried out for the greatest and most effective benefit of suffering humanity." Those are fruitful words, because they express this great authority's conception of the noble end to which our science is to be applied. The reference to the International curriculum will be scoffed at by many, no doubt, as revolutionary almost. But no such hide-bound toryism marked the reception which the brilliant assemblage gave to the idea as it fell from the lips of the President. The spirit of progression was paramount when the President further spoke to this effect:—"In this 20th century, then, International federation constitutes a new organism, necessary, not only to dentistry, but to all departments of professional and scientific activity. When men thus meet in great, peaceful session, and in universal expositions and congresses, wholly given up to the interchange of ideas and communicating the result of these works and investigations, they must forget political and geographical limits, and think only of the

greatest good that may be derived for the benefit of all, regardless of national or local susceptibilities."

What a nobility of liberality there is contained in that sentiment; what an enviable enunciation of professional altruism. The sole consuming thought of this recognised ornament of our profession is a world-wide mutuality of action, an unbounded interchange of the best products of professional learning, and for what? The benefit of all; fearless of competition, regardless of self-interest.

What wonder, then, if after such words there arises before our mental vision a picture of a grand cosmopolitan mosaic of professional liberty and affection, in which the segments are interwoven and cohere by natural affinity. The speaker undoubtedly looked beyond the four walls of the assembly chambers, and directed his remarks "to the whole of the members of the dental profession throughout the world—devoted fellow-workers in this great international task." To him the broken circle was abhorrent; he saw the unity of a common bond, the completeness of a common sympathy, and his periods bespoke the glowing fervour with which he regarded the prospect.

It is good that we, in Australia, should embrace the larger sphere. If we do so, things will appear in their proper perspective. We should recognise that, while we are wrangling among ourselves as to terms, a world-wide compact may be made which shall squeeze us out. Because, after all, highly important as we are to ourselves, modesty must impel us to admit that the rest of the world might get on without us. The obverse is not the case, however: we would not be able to make satisfactory progress, advanced as the profession is here, without the moral and material support of the rest of the dental world.

That, it appears to me, is the crucial argument in favour of international federation and interstate reciprocity—we have much to gain and little, if anything, to lose. By federation we partake on an equality with the world's advancement in dental science, and by reciprocity we present ourselves as one Australian unit, possessing the strength and numbers essential to gain the recognition which would so materially assist us in obtaining our knowledge as near first-hand as is geographically possible. At present we accept

with avidity the latest and best from the great oversea founts of dental knowledge, and so long as that knowledge comes in inanimate form all is well. But we turn away (through our restrictive enactments) the living messengers of learning, the animate results of scholastic tuition, refusing in some instances our own flesh and blood, who study and obtain the highest degrees abroad. This will never advance reciprocity, nor enhance in any sense the status of dentistry here. We will accept the text-book, but will not let the author himself come here to practise, if he wished. This requires some serious thought when framing dental legislation.

In an accepted federation and a state of general reciprocity we might before long be imbibing actual clinical instruction direct from the high priests of the cult, to our immeasurable benefit. The value to us which would accrue from the presence in our midst of the very men to whom the dental world looks up to for knowledge would be incalculable. Incidentally, I am assured our pockets would benefit by the newer ideas evolved. We know that often a new discovery in our art becomes actually obsolete, being supplanted by still newer methods, before the primary idea reaches us—because, as yet, we do not cater for advanced knowledge: we do not, as a body, endeavour to keep touch with the rapid development of dentistry, which at times is materially altered before the printing press can publish it to us.

If there existed an open channel for men to come and go freely, Australia would not be long before she took foremost place in the scheme of discovery. It only wants the needed stimulus; the latent force is surely here, for I am patriotically certain that our men are as brainy as other men, but they need stimulating to effort. But while we shut our doors to our own people and strangers alike, who acquire their learning outside the Commonwealth of Australia, we must go on floundering in the comparative darkness of a meretricious self-containment.

If we propose to stand out of the universal federation, of which our own interstate reciprocity should be the first step, we enter on a policy which must prove unstable, and the only result of which will be a profitless delay. It is almost an order of nature that Australia will eventually enter the circle. If we admit that, it at once becomes an argument for prompt action in the direction of establishing Australian reciprocity—and we will have to admit it.

The strength of unity and the weakness of separateness is well shown in connection with the examination of school children's teeth, which the dentists of New South Wales are now carrying out. Though valuable local conclusions may be formed, the full value of such research depends upon its completeness and the force of its comparisons. If all the States were in reciprocity, this work could be made a national one. Then a complete Australian study could be presented for comparison with the results obtained in other parts of the world. That is a forceful illustration of the value of combination, yet it is quite a small thing measured in juxtaposition with other reciprocal or federal possibilities.

I am an earnest advocate of interstate reciprocity as the stepping-stone to international federation. It is because of the unsubstantial and unhealthy blots on the modern system of professional life that I appeal to my colleagues, the dentists of Australia, to sweep down the barriers of purblind selfishness, or genuine, if unjustified, apprehension, and make a grand compact, which shall mean at once a sole and indivisable dental community for Australia. New societies are springing up here as an outcome of the natural yearning for comradeship and mutual improvement. Though they may not recognise it in every case, it is a fact that they are the germs of the culture called Universal Brotherhood. Everything points to the instinct for union—be not afraid, nor let small differences force us to keep apart. Sometimes it is that one society or university in one State vows to stand or fall by this or that mere detail. All that could be adjusted, doubtless, if we could meet as, in a modest but still effective way, we are doing here.

The marvellous celerity with which those 1600 members of the F.D.I. were brought together, in all representing 28 countries, gives me hope. Surely we may do something for ourselves—let each society, or other body, in each State keep it ever before them —the load-star of ultimate success. Let my concluding words again urge reciprocity—embody the germ in your laws and rules —as the stepping-stone to a lasting universal community of dentists, wherein Australia may be a recognised and honoured unity.

DISCUSSION.

Dr. RENDLE said there were two points he wished to dwell upon. The first was the dental examination of school children. But before they could do that properly, they would have to educate their legislatures. Taking great interest in this matter of children's teeth, some time ago he succeeded in causing a dental society in Brisbane (now defunct) to write to the Home Secretary, asking permission to make a systematic examination of the school children for the purpose of providing a scientific record, but the request was refused. The second point was, as to the methods of dental union, or rather the equality of the different dental societies, similar to the case of the medical bodies. Then a dental congress might be arranged, and united action taken. Meetings might be held, say every two years in the different States.

Mr JONES said he felt rather diffident in speaking, but he must congratulate Mr. Hall on his paper and as an essayist. On the question of reciprocity he was not altogether in a position to speak. If they looked at it from an individual standpoint, in all probability they had nothing to lose, but a good deal to gain. Dentistry in Queensland had made very great strides of late. The public was very much better educated than it was a few years ago. Dentists did not now regard their practices as so much to be got from the generality of the public, but from individuals. A person now wanted a certain dentist, and no other would do. It was not a question of wanting a dentist, but it was Dr. So-and-so, who had succeeded in some case perhaps, where another had failed. As to State reciprocity, he thought jealousy would have a good deal to do with it. He advocated the broadening of their views, believing that the broader they allowed their views to be the better it would be for those they came into contact with. The examination of the teeth of school-children had been mentioned, and, for his part, he had no hesitation and feared no contradiction in saying that it was the most necessary step, from a dental standpoint, that they could take. How could they better reach the children than through the State and public schools? They might read papers, as Mr. Stephens had given them an example of, on how to treat children, but the question was how were they to overcome the great ignorance displayed by parents and guardians of children whom they were expected to

treat, and who were going to be the future members of the community? There was only one way, and he said it without fear of contradiction—the most effective way to get at the children in Queensland, or anywhere else, was through the schools, whether private, State, or public schools. Some five or six years ago, when this matter was resting rather heavily on his mind, he made the request to the Editor of the "Queensland Educational Journal" for permission to write an article on the care of the teeth of school children, with the object of, in some small way at least, educating the teachers, but the request was refused. Why it was refused he did not know, but he was told that the article would not be allowed in the "Educational Journal." Whether it was not educational enough, he could not say. He considered it was part of the education of a child, as well as an adult, to know properly how to care for the teeth. He had great pleasure in listening to the paper.

Mr. PARKER said the paper was one which should not be forgotten. It was one which gave them an opportunity as a society of doing practical work. Referring to Mr. Jones' remarks, he felt quite sure that if an application were backed up by the Society, the Education Department would have to yield. Five or six years was a long time ago, and things have changed since then. In the practical work of dentistry there was great need in this State of a dental hospital, and a dental hospital must eventually come. He thought the Society should take some steps in this direction. They might commence in a small way, and this would be a demonstration that the amount of work warranted the establishment of a dental hospital. Having made reference to a recent international dental congress held in Europe, he expressed his agreement with what had been said about State reciprocity. There was no reason why they should go to America. In America there was reciprocity between only few States. One had to pass perhaps forty different examinations before he could practise all over the States. He concluded his remarks by moving: "That this Society approach the dental societies in the different States of the Commonwealth, with a view to arranging for a conference to be held in one or other of the States each year."

Mr. HALL, in reply, expressed his thanks for the appreciative way in which his paper had been received. If he had contributed anything to the thought on the subject, or said anything to stimulate others, his object would have been realised. He represented officially in Queensland the association to which he belonged, and he could offer, on behalf of that society, active and actual co-operation in regard to the object of Mr. Parker's motion.

Filling Root Canals by Capillary Attraction.

An Explanation of "It," a New Root-Filling Compound.

BY W. T. SHANASY, D.D.S. (ADELAIDE).

The methods of root-filling in vogue have always seemed very unsatisfactory to me. There has always been a feeling of uncertainty as to whether the root is thoroughly filled, and far too often I have been certain that success has not been achieved. It was that very self-same uncertainty that prompted me to experiment with the hope of discovering something that would be entirely reliable and satisfactory from any standpoint that a root-filling might be viewed. In all my root-fillings, made out of the mouth, it has been with the greatest painstaking perseverance only that I have been enabled to perform a satisfactory root-filling, which, if attempted in the mouth, would use up too much energy and too much time.

It is with the greatest confidence and pleasure that I submit the result of my labours to your criticism, believing that I have a combination that will not only fill the canal to its apex in less time than it takes to tell it, but will fill every part of it, penetrating into the most constricted portions by capillary attraction, and will remain there an insoluble and stable mass of antiseptics and germicides in the very finest division possible, sufficiently strong to antagonise any trouble that an unremoved pulp fragment or poisonous bacterial product might otherwise set up.

When I set out to solve the proposition, the ideal material which I had in mind was to find a substance which could be introduced as a liquid and which would set as a solid; that is, a substance which would follow the finest probe to the apex by *capillary attraction*, and would become solid almost before the probe could be removed, thus making it possible to fill a canal in two or three minutes. Secondly, introduced in a fluid form, it should take hold of pulp remnants which the operator has not been able to remove, and throw around them such a mass of antiseptics, germicides, and tanners that would mummify and hold them harmless prisoners for all time. That would mean the exclusion of drugs that are soon dissipated, such as carbolic acid and the essential oils. Thirdly, it must contain *iodoform* in its very minutest

division, for its well-known property of neutralising bacterial poisons; as, for instance, when putrescent canals are treated. In treating putrescent canals there is probably more to fear from bacterial poisons than from the bacteria.

Under the second heading, I will say that the combined strength of the formalin and dried alum in the compound would be amply sufficient, in my opinion, to tannify shreds of pulp adhering to the walls of the canal, and, thirdly, the iodoform, with the aid of the other drugs, is in sufficient quantity to neutralise any toxins that might be lurking in the canal, or which might be subsequently developed.

Experience teaches us, sooner or later, that every care must be exercised in the use of irritating drugs in the root canal, such as sulphuric acid, zinc chloride, formalin, and others. You will notice that the only irritant in the formula of this compound is formalin. I start out with 2½ per cent., but the finished compound contains slightly less, owing to slight loss in manufacture. It has never given any trouble by irritating at the apex in all the practical cases in which I have used it; nor has it irritated when flowed over nearly exposed pulps; indeed, my observations show the compound to be a direct sedative, and a most satisfactory cavity-lining to fill upon.

The introduction of this substance has placed me in the unenviable position of a manufacturer. I have taken up this burden out of sheer enthusiasm and the desire to establish a new method of filling canals, namely, by capillary attraction, a method which has long appealed to me as being the only certain way of filling a hole, the other end of which is out of sight. That it does, it needs but the simplest demonstration. And, again, this substance is in very fine division, and clings to the walls of the canal with much tenacity, closing up the fibrillæ of the dentine. It sticks to a wet surface, and a moist canal does not interfere with it closing the apex. I believe it to be the most forward move in this direction that has been recorded in connection with the filling of root canals.

It is an extremely unpleasant and difficult thing to make, in that any slip will precipitate disaster and liberate the iodine from

the iodoform. Incompatibility has to be reckoned with, in order to produce a stable compound. A stable compound must be produced from an otherwise difficult formula, so that my reason for manufacturing is the knowledge that failure is sure to follow where no special training has been had along this line; and, secondly, to give a stable and reliable product to those who, having learned of the possibilities of filling canals by capillary attraction, desire to adopt that method. So that, for the present, at any rate, I have decided to make and supply direct to any of my professional friends who are pleased to use it, and enjoy that peace of mind that follows a perfect operation.

On the motion of Mr. Stephens of Maryborough, seconded by Dr. Gibson, it was decided to make a meeting of this nature an annual one.

Mr. STEPHENS felt sure that if such meetings became regular, the country practitioners would be glad to take advantage of these meetings.

The President then declared the meeting closed.

The Society is indebted to Messrs. Bosch, Barthel & Co., Brisbane, Sydney and Melbourne, who presented for inspection a number of the latest appliances and materials.

AMALGAM FINISHER.—In many places a narrow strip of rubber dam, used as a tape, will serve admirably for the purpose of smoothing down to the borders and polishing amalgam fillings on proximal surfaces of the bicuspids and molars, and is especially good for removing any particles that may adhere to the gum between the teeth.—*Dental Office and Laboratory.*

* * * *

POLISHING CEMENT FILLINGS.—I have found by actual experience that cement fillings finished as follows are more impervious to moisture, and take a better polish, and are more durable, than by any other method I have ever tried: Give the cement time enough to fully harden, then dress it down with strips or fine sandpaper discs. Now to polish, put on a fine cuttlefish disc, run the edge of the disc against a piece of white wax, till coated: hold this against the filling lightly, and run at a very high speed, to heat the wax into the surface of the cement. Lastly finish with agate burnisher.—William H. Steele.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The monthly meeting of the Dental Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, 6th October, 1905, at 5.15 p.m.

There were present Dr. Astles (President), Drs. Davy and Wilkinson, and Messrs. A. J. Watts and A. J. Wright.

The minutes of the previous meeting were read and confirmed.

ELECTION.—An election to fill two vacancies on the Board, caused by the resignation of Drs. A. J. Bennett and Earle Newton, was held on 20th September.

The candidates were Drs. Davy and Ramsay (Medical), and Dr. E. C. Drake, Messrs. D. R. Davies, C. O. Tebbutt, H. J. Tuckfield, and A. J. Watts (Dental).

The President declared Thomas George Davy, M.A., M.D., Ch.B. Oxon., and Arthur Joseph Watts, L.D.S., R.C.S. Ire., to be duly elected.

REGISTRATION.—An application was received from Albert Ephraim Mallan, under clause 10 (a) of the Dentists' Act, 1894, who produced registration certificate of the United Kingdom.—The application was granted.

COMMONWEALTH DENTAL CONGRESS.—A letter was received from the Dental Association of New South Wales, proposing that a Commonwealth Dental Congress be held during 1906. It was decided to call a meeting of all registered dentists for Friday, October 20, at 8 p.m., in the Builders and Contractors' Exchange, Forrest Chambers, to deal with the matter.

CORRESPONDENCE was received from D. P. Barrett, Herbert Solomon, Ralph Potts, H. J. Tuckfield, and Thomas Wilson.

FINANCE.—The bank certificate and Board's cash book were produced, and accounts were passed for payment.

FRANCIS M. SYME, Registrar.

NEW ZEALAND.

Porcelain Inlays.

BY A. PATERSON, D.D.S.

Read before the Christchurch Odontological Society, September 14th, 1905.

This subject is one of growing importance to every dental practitioner, and occupies more space in the dental journals of England and America than any other branch of our profession, with the exception possibly, of orthodontia. Through the medium of this style of work, we are now able to restore to beauty and usefulness many mouths which before were marred, either by the display of huge gold fillings, or cement which though not unsightly, in the majority of mouths soon comes to grief.

Porcelain is, without exception, the most natural substitute that we have yet had for replacing the natural tooth, or part of a tooth, and, when properly manipulated is very durable.

Dr. W. A. Capon, of Philadelphia, one of the most earnest workers in this branch, reports that inlays which were put in by him twelve to fifteen years ago are still giving excellent service.

Before going further, I wish to say that I lay no claim whatever to originality, and I have tried to make it as simple as possible, so that any of you who have not yet tried your hand at inlay work will find no difficulty in making a start with it. Porcelain, we may say, is divided into what is known as the high and low fusing. The high fusing is any porcelain which fuses above 1060 deg. C., which is the melting point of gold; and the low fusing is any porcelain which fuses below 1060 deg. C. Personally, I use the low fusing for inlay work, as I found, when experimenting with it, that I had much better results than with the high fusing porcelain.

With the low fusing you can use pure gold as a matrix, whereas in the high fusing you must use platinum, which I have always found much more difficult to work and taking a much longer time to get an accurate matrix, which alone is a drawback, as to a busy practitioner time means £ s. d. Platinum has, however, this advantage over gold, in that it requires no investing, and it is not

so likely to become put out of shape in handling, but this need never happen with gold, if the proper precautions are taken. To the beginner, the first thing to be considered is where is porcelain indicated? It is indicated on the labial, mesial, and distal surfaces of the six anterior teeth, both superior and inferior, and on the mesial and buccal surfaces of the bicuspids, especially when visible. Some authorities on the subject claim that they use it everywhere in the mouth, which I think is carrying it rather far.

CAVITY PREPARATION.—The preparation of a cavity for a porcelain inlay does not differ materially from that for cohesive gold, avoiding, however, any bevelling of the enamel margins or undercuts of any kind. The enamel walls should be prepared at as near right angles as possible, and well polished, which I find can be done best with sharp chisels and barrel-shaped burs. In all approximal cavities the teeth should be as widely separated as possible, and if you find after separation that the teeth become too tender to work on, fill both cavity and separation with temporary stopping and allow it to remain until a future visit, when you will find that you can then work with comfort both to yourself and to the patient.

For the main excavation of a cavity I prefer a No. 7 round (but not a dentate) bur, especially in all labial or buccal cavities, as it seems to give just about the right depth to a cavity if the bur is buried about half its depth. In excavating you should always remove more of the palatal or lingual wall than the labial, especially if you are replacing a corner, as the stress brought to bear during mastication is from inwards outwards; consequently, if you remove too much of the labial wall the first time your patient masticates, your inlay may come out. Excavation being completed, the final preparation of the margins should be done with small arkansas stones, which are prepared for the purpose; being careful to keep both stone and cavity wet, and using slight pressure with the engine revolving at high speed. The margins being completed, the cavity is now ready for taking the matrix. I have brought with me a few prepared cavities in extracted teeth, with matrices burnished into them, which will, I hope, give you a fair idea of cavity preparation and matrix formation for inlay work.

PREPARATION OF THE MATRIX by what is known as the direct

method, say for a mesial or distal cavity in a central. Cut a piece of non-cohesive gold, No. 30 American gauge, considerably larger than the size of your cavity, and in outline somewhat the shape of it, pass it between the teeth over the cavity, and hold it gently in place with the first finger of the left hand, then, with a large pellet of wet cotton, or amadou, press the gold into the cavity, being careful not to let the edges lap or tear. I prefer cotton to amadou, as it seems to keep in place much better. When you have pressed the gold into the cavity sufficiently to show the outline of it, remove and trim it, leaving just enough surface to see the outline and shape of your tooth; you can then better judge what contour or fulness to give your inlay. Replace your matrix in the cavity, and pass a strip of ordinary cotton tape quarter or half-inch wide, or a strip of rubber dam between the teeth over the matrix, drawing it taut, labially and lingually, thus holding your matrix in position while you pack pellets of wet cotton or amadou tightly into it until full. This you can do, either with hand pressure, or with an automatic mallet, using a piece of rounded orange wood as a plugger—if you are using platinum for the matrix, you will find the latter much the better plan. This idea of burnishing over tape is a capital one, and is credited to Dr. Reeves, of Chicago, and was demonstrated to those present at the Wellington Conference by Dr. Cox, of Timaro. When you have compressed the cotton or amadou into the cavity as much as possible, hold it in position with an instrument held in the left hand, turn back your tape or rubber dam, and burnish thoroughly the matrix over the edges of your cavity with steel or ivory burnishers. This will also have the effect of reducing considerably the thickness of the matrix over the margins, thereby giving the inlay, when finished, more perfect contact to the walls of the cavity, afterwards using one of the late Dr. Flagg's flat burnishers to carry the matrix under the gum if necessary, and as a last precaution, reburnish with the mallet and the edges with one of Dr. Jenkins' rubber burnishers. If all these directions have been carried out, and no under cuts have been made, the matrix can be easily dislodged by the aid of a needle point explorer (I use No. 20 S.S.W.), pricking it into the floor of the matrix and gently prising it out, but in doing so, be very careful not to alter its shape. There are other ways of dislodging a matrix; some blow it

out with blasts of air from a chip blower, but this method, to my mind, is not a good one, as you are very apt to blow it out on to the patient's lap, or the floor, and alter its shape. Another way is to fill your matrix with beeswax, or gum camphor; chill it, and remove the whole with an instrument, then burn it out over an alcohol flame if gum camphor is used, and if wax, by dipping it into boiling water until the wax has been melted out. Great care should be taken, after using either of these methods, to see that the matrix is perfectly clean, as any residue will be sure to discolour your inlay.

THE MATRIX IS NOW READY FOR INVESTING.—Any of the platinum investing pans which come with the outfits should be filled with asbestos powder (I prefer Jenkins' asbestos, as it is much coarser and seems to hold together better than the finer makes), then saturate it with absolute alcohol, and when in a creamy state place your matrix into it, giving it a few gentle taps with the handle of an instrument to settle it properly in the investment, and be careful that no air bubbles have formed under your matrix. It is a good plan to have your investment slightly overlapping the edges of the matrix, as it holds it firmer in place. When you are satisfied that the matrix is properly invested, put a match to it and burn out the alcohol.

The matrix is now ready for the application of the body, which should be selected to match the tooth as nearly as possible. Now this is, I think, the most difficult part in connection with inlay work, and there is no royal way to learning it; it only comes with long and continuous practice; but we have one satisfaction, and that is, that even an inlay of poor colour is a vast improvement to a gold filling as far as beauty is concerned. One thing I might say in connection with the colour problem is—always have your inlay a little lighter for an approximal filling, and a little darker for a labial one, as the light and shade tend to darken an approximal filling, and to lighten a labial one. Having selected your body, it is mixed on an agate dish, either with absolute alcohol or distilled water—they have both their advantages, but I prefer distilled water, as alcohol evaporates rather too quickly for my liking, leaving the body too dry to work properly, except by continually adding more alcohol. Now take

your matrix, and paint with a fine camel's hair brush the margins and walls for about two-thirds of their depth, but not the floor, with a very thin solution of shellac; this will prevent the adhesion of porcelain to the matrix, so that the porcelain in contracting, which it always does in fusing, will not adhere to and distort your matrix. The matrix is then filled with body, and gently tapped so as to condense it as much as possible, for the more you condense your body the stronger and more dense your inlay will be. You must be careful not to allow any of the porcelain to get beyond or overlap the margins, if it should, remove it with a fine camel's hair brush, slightly moistened and pointed. Dry out the moisture in the porcelain thoroughly, and proceed to bake to a high biscuit, almost to a glaze. If you put your porcelain into the furnace moist, the water contained in it will boil, distorting your matrix and causing what is known as a porous inlay. It will be found on removing it from the furnace, that the porcelain has shrunk to almost half its original size, so when it is cool, add more body and bake again, using the same precautions and repeating the baking until you have your inlay the shape and contour you desire.

An inlay requires anything from two to six bakings, and I may warn you to be very careful not to overbake, especially if you are using the low fusing porcelains, for if you do, the colour will be somewhat, or, possibly, entirely bleached out, and you will have a very brittle inlay, which will in all probability fracture while you are setting it, especially if under pressure, which it should be.

We will now suppose the inlay has been baked to your satisfaction; the next step is to try it in, and see if it fits the cavity perfectly; if it does, remove it, and mix up some cement, whatever colour you intend using, with a drop of water, place a little in the cavity, and press your inlay to place. This will give you a very fair idea of the colour your inlay will be when properly cemented in place. If the colour is satisfactory, remove it, and wash out the cement from both cavity and inlay. Now slightly undercut your cavity with a No. 1 bur, so as to give the cement better hold, and, if the inlay is large enough, cut a groove in it also, either with a diamond disc

or a small knife-edged carborundum stone, and be careful to wipe your inlay clean, or a discoloured one will be the result. If it is too small to groove, etch it with hydrofluoric acid, but be careful not to allow any of the acid to get on the outer or glazed surface of the inlay. This is best done by dropping melted wax on the outer surface of the inlay, then cover the inner surface which you want etched with the acid. We are now ready for the final setting of the inlay. Wherever possible, apply the rubber dam, then trim a piece of orange wood to a knife-edge and put a little sticky wax on the tip of it, then pick up your inlay on it, having it in the proper position for insertion into the cavity. Now smear both inlay and cavity with the liquid of your cement, then remove as much of it as possible with blasts from your chip blower. Mix up a small quantity of the chosen cement to a thin creamy consistency, and smear it over both cavity and inlay, which it will take to very kindly after having already been moistened with the liquid. This moistening of cavity and inlay with the liquid increases the adhesive property of the cement. You are now ready to press your inlay to place, and having done so, keep it there under pressure for twenty minutes or half-an-hour, which is best done by wedging it with a piece of orange wood; then remove your rubber dam and wedge if you like, but do not remove excess of cement, until a future sitting, at which time you can remove any remaining with a cuttle-fish strip, and you will then see a filling which will have paid both yourself and the patient for the time and trouble you have spent upon it.

NOTICES.

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ANONYMOUS communications cannot receive attention.

All Communications intended for publication in the "Journal" should be addressed to the Editor at 177 Collins Street, Melbourne, not later than the 21st of each month.

All contributions must be written on one side of the paper only, and must be authenticated by the writer's name and address, not necessarily for publication, but as a guarantee of good faith.

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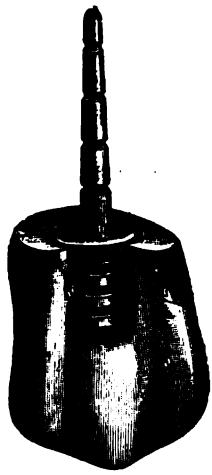

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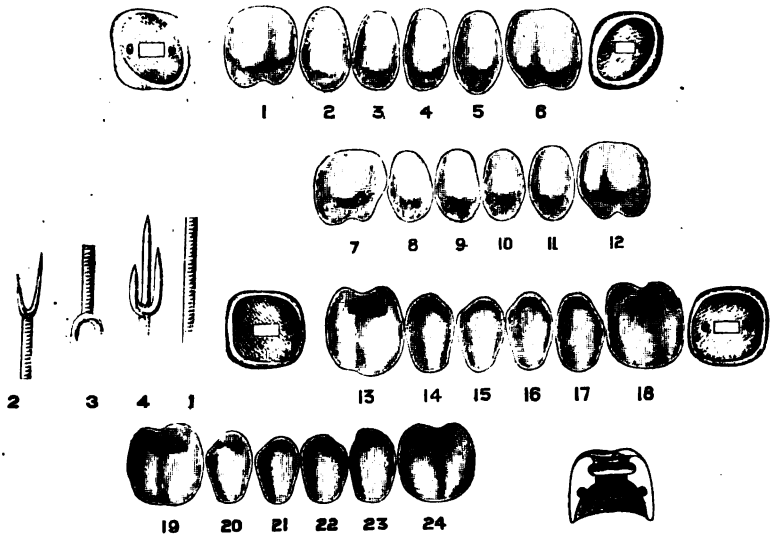

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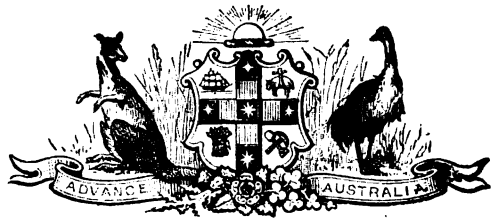

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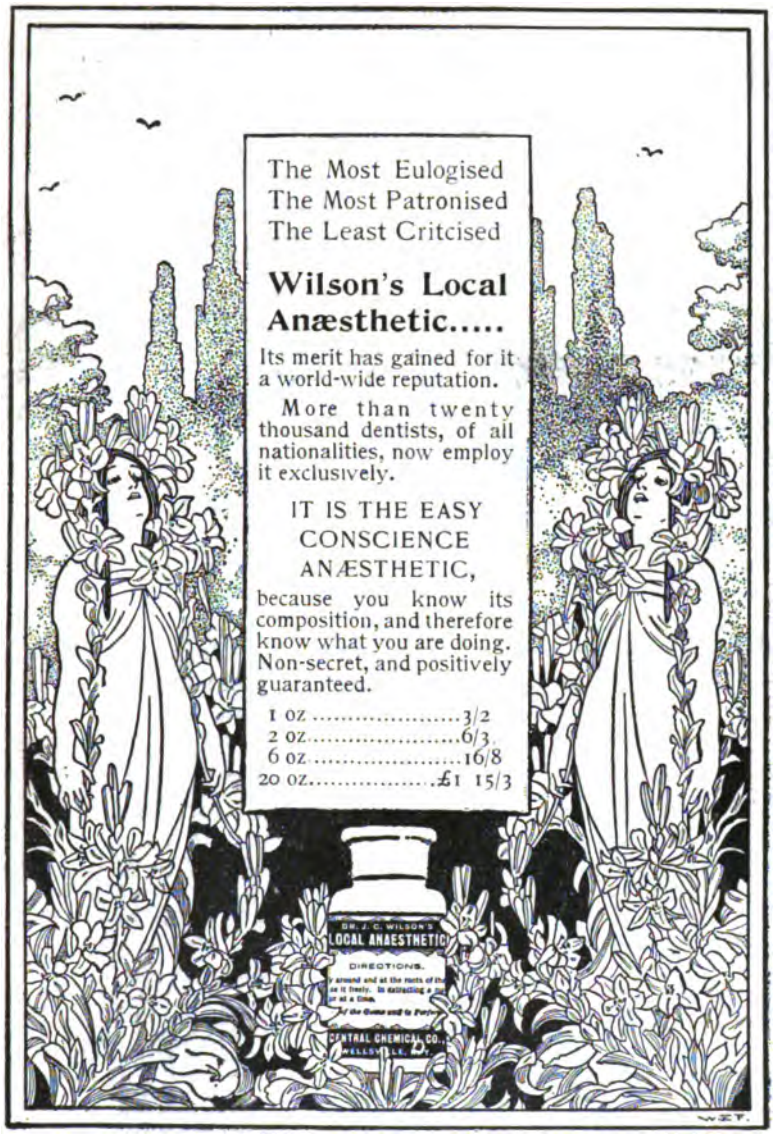

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a *b* *c* *d* *e*

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THE AUSTRALIAN

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EDITORIAL.

The chief interest in Victoria during the current month has centred around the annual examinations held by the Dental Board. The official results will not be available in time for publication in this issue, for, as we are preparing for the press, the whole of the examinations are not completed. To satisfy the natural anxiety and eager desire of all concerned, and to let the students know their fate, the Dental Board will hold a special meeting on Friday, December 1st, to receive the reports of the Board of Examiners.

But, while these routine educational matters are fulfilling their natural intention so effectively and smoothly, the Bill containing the much-needed amendments of the Dentists Act, 1898, has not yet been brought before Parliament, in accordance with repeated promises. This unaccountable delay is causing a feeling deeper than can be expressed by the term "disappointed hope" among dentists who practise their profession in a legitimate manner, and who are most desirous in having the educational course, already sanctioned by Parliament, carried out in the most efficient manner.

It would be an easy matter for this journal to make many comments on the situation of a trenchant character, by simply using the language as expressed in Parliament itself, and ask, "What could anyone expect in this caucus-ridden community, but the use

of the gag, or that such a measure should be guillotined out of existence at the tail-end of the session?" No one even dreamt of such a *hari-kari* when the courteous promise was made two or three months ago. We will, however, endeavour to be a little more dignified, and place on record our sense of regret that the proper course has not been carried out.

We cannot, however, leave the matter without once again recapitulating that the action taken in formulating these amendments has for its first object the safeguarding of the public, for whose well-being and protection the Government exists; and also with regard to the public health, for without good teeth the primary conditions of nutrition fail, and the general health suffers. The amendments, therefore, are necessary for the Dental Board to administer the law more efficiently, as well as to carry out to their fullest extent those provisions already in force for the education and training of the dentist of the immediate future.

We feel that to continue these remarks would simply be a repetition of well-worn views of the thinking minds of the dental profession the world over. At the same time, we call attention to an important paper, "The Teeth of our Children," by Mr. F. W. Thompson, of Christchurch, which we have great pleasure in reproducing in this number. The statistics so engagingly put forth are, we fear, but little heeded by many. The paper, we feel sure, will be a help to many in this State who share in the ideals so ably expressed, and no doubt some effort will be shortly made whereby the value of statistics already published will be enhanced by a thoroughly systematic examination being made in Victoria. That some such action is necessary is revealed by the experience of the daily practice at the Melbourne Dental Hospital, and the whole community needs to be impressed with its responsibilities in this matter. It is here that Government or State action can be advantageously taken in conjunction with the existing organisations, and not by privately appointing an outside man. The whole scheme must be organised and worked systematically, or the value of the statistics is worthless. Neither are the children to be pauperised, nor the public be led to imagine they can enjoy the facilities of good dental treatment for nothing. We would impress upon our readers to take both the paper and the scheme it so ably outlines into their earnest thought and consideration.

THE DENTAL BOARD OF VICTORIA.

The ordinary monthly meeting of the Board was held on Friday evening, 24th November, 1905, at 8 o'clock, at the Board's Offices, 454 Collins St., Melbourne.

The chair was occupied by the President (Dr. Springthorpe). There were also present Dr. Mullen, Messrs. A. R. Clarke, J. Iliffe, D. McGregor, and W. Witt. J.P.

CHARLES FREDERICK WILLIAM PIERSON applied for permission to enter for the *sine curriculo* examination. He submitted that he had fulfilled the conditions required by Section 10 of the Dentists' Act, 1898, and as such was entitled by law to enter for the examination.—The Board, after listening to the evidence submitted by and on behalf of the applicant, and carefully considering the same, allowed the application.

COUNSEL'S (Mr. Isaacs, K.C.'s) opinion was submitted to the Board in *re* M. J. Pietriche, and his application for registration as a dentist, under the provisions of Section 19 of the Dentists Act, 1887.—Counsel's opinion was to the effect that Mr. Pietriche was not entitled to registration as a dentist.—The Board refused the application for the reasons given in Counsel's opinion.

It was resolved to again impress upon the Chief Secretary the necessity of introducing the Amending Dental Bill into Parliament this session, as an urgent piece of legislation required in the best interests of the community.

A case of the infringement of the provisions of the Dentists Act was brought before the Board, and a prosecution ordered.

A special meeting of the Board was arranged for Friday evening, the 1st of December, 1905, to deal with results of examinations, and it was decided to hold the supplementary examination in February, 1906.

The Board adjourned.

IN THE SUPREME COURT OF THE STATE OF VICTORIA.

QUINTON v. THE DENTAL BOARD.

A motion for a *mandamus* was brought before the Full Court (Mr. Justice a'Beckett, Mr. Justice Hodges and Mr. Justice Hood) on Friday, November 10th, directing the Dental Board to hold an examination of Ernest William Quinton.

Mr. Cussen (instructed by Messrs. Sincock and Wadham) appeared for Quinton: and Mr. Isaacs, K.C., with Mr. Mackay (instructed by Mr. Joske), appeared for the Dental Board.

After hearing arguments on both sides, at 4 o'clock the Court adjourned until Tuesday, 14th Nov., when arguments were concluded.

It appeared from affidavits that in September, 1894, Quinton was, on his own application, put on the register of dental students entitled to submit themselves for the modified examination under section 54 of the Medical Act 1890, but it was not until last January that he submitted himself for that purpose. In the meantime the Dental Act 1898 was passed, and the section in the Medical Act 1890 providing for the "modified examination" was amongst those repealed. The Board refused the application, on the ground that the claim to be examined was not well founded, and a *mandamus* was now sought by Quinton to compel the recognition of his claim.

The *mandamus* was refused, with costs, the Court holding that it would not be justified in directing the Board, after an interval of eleven years, to hold an examination under rules which had been repealed.

THREE RULES FOR ARTICULATION.—Three rules cover essentially the ground. Never allow pressure on the six anterior teeth; never, in full upper plates, allow the pressure to be greater on one side than the other; never allow a second or third lower molar which has projected forward so that its face shows to meet an artificial tooth at that angle, as it will surely crowd forward the upper plate, the same as the meeting of the anterior teeth.

COLLEGE NOTES.

The 1905 session has now practically drawn to a close, and students will soon be enjoying a well-earned rest. The year has been a prosperous one for all students, and the result of the examinations just held are anxiously awaited. The work at the hospital has gone on smoothly throughout the year, and the students have been, we may say, a very happy family. When the results are posted we sincerely hope that each individual student will find he has attained the highest success, as a reward for his year's labours. No doubt some of our students will graduate this year; we wish them success in practice, and hope they will not fail to remember the Australian College of Dentistry and the Dental Students' Society in after years, and also the friendships they formed there. We as students were very pleased to notice in last month's issue of this journal that a site had been purchased for the erection of a new Dental Hospital; we hope very soon to see the new building in course of construction. However, many of us will never forget the present College and Hospital, as in it we have spent some very happy times. To the Council of the College our very best thanks are due for the manner in which they have provided the means whereby the students have been enabled to fulfil the requirements of their training.

The Dental Students' Society's annual dinner will be held in the Vienna Café, Collins Street, on the evening of Thursday, Dec. 7th, at 7 p.m. This year's function promises to eclipse all previous ones. The Committee are working very hard to deserve a successful gathering; tickets are going off well. Past students of the College and old members of the Dental Students' Society are requested to keep the date in mind, and roll up in full force. Tickets, 6/- each. Obtainable at Miss Dodds, Florist, Collins St.; the Dental Depôts; from members of the Committee; or the Hon. Sec., Mr. W. R. Lyon.

As a rule, a full lower plate is more comfortable and useful than a partial, because the pressure is distributed equally over the whole jaw.—Dr. L. P. Haskell, in *Office and Laboratory.*

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

A special meeting of the Board was held on October 19th, 1905, at Board Room, 7 Richmond Terrace, Domain, Sydney, at 4.45, to discuss the Dentists' Amendment Bill, now before the Legislative Council, there being present:—Mr. C. G. Hodgson (President), in the chair; Dr. Palmer, Mr. C. C. Marshall, Mr. J. Stinson, and Dr. Kirkland. An apology was received from Mr. G. Norton Russell and Mr. Hall.

The proposed Bill, together with the Amended Bill as drawn up by the Board, were under discussion, and the Registrar was directed to get both Bills typewritten, clause for clause.

On the motion of Mr. J. Stinson, seconded by Dr. Palmer, it was resolved that the Board wait upon Sir Arthur Renwick without delay, and while placing before him the consolidating Bill already framed, make it clear to him that this Board, rather than jeopardise legislation, would suggest the following amendments to the Bill now before Parliament, and which had been put before them for consideration.

The meeting adjourned until Monday, Oct. 23, at 8 o'clock, p.m.

The adjourned special meeting met at 8 o'clock, p.m., on Monday, October 23rd, for further discussing Bill; there being present Mr. Hodgson (in the chair), Mr. Stinson, Mr. C. C. Marshall, Dr. Palmer, Dr. Kirkland.

An apology for absence was received from Mr. Hall, Mr. Norton Russell being still too ill to attend.

The clauses as typed were fully discussed, and the following amendments made:—

AMENDMENTS, &c.

Sec. 3 to read:—Any person above the age of twenty-one years who proves to the satisfaction of the Board that he is of good character, and that he—

(a). Has passed the entrance examination in the dental curriculum of University of Sydney or some examination approved by the Board, and such other examinations before the examiners appointed

by the Board, as prescribed, or any equivalent examination approved by the Board in lieu thereof, and has been engaged during four years in the acquirement of professional knowledge with a dentist practising in New South Wales, under articles of apprenticeship registered in accordance with the regulations made under the Principal or this Act.

To follow on Clause 3 after the words "Principal Act," in line 25—Provided that nothing in this clause contained shall be deemed to apply to any student or apprentice engaged in the study of dentistry who at the time of the passing of this Act had entered upon such study pursuant to the Principal Act and all rights of such students or apprentices under the Principal Act are hereby reserved.

Sec. 4 (e) to read—Practises or has practised, or has since the passing of this Act under the name or style of any company, institution, hospital, college, school or association.

Sec. 5 (c) to read—Without the sanction of the Board, acts as a surgical or operative assistant to a dentist duly registered, unless he be an apprentice in the third or fourth year of his engagement, and under the immediate direction of the dentist to whom he is apprenticed.

7. (1) The Board may, with the approval of the Governor, make such regulations as to the Board may seem fit:—

(a) For generally carrying into effect the objects of this Act.

(b) For fixing the time and regulating the elections of members of the Board.

(c) For regulating the meetings and proceedings of the Board and the conduct of the business of the Board.

(d) For regulating the registration of all articles of apprenticeship and agreements to study under which apprentices or students to dentists are now or may hereafter be serving.

(e) For regulating the examination of persons claiming to be registered as dentists, and for determining the qualifications to be held and the evidence to be produced by any such persons and the form of certificate to be given by the Board.

(f) For regulating the recognition of diplomas, certificates, and degrees, under sections nine of this Act.

(g) For determining what name, title, word, letters, addition or description may be used by dentists in conjunction with their names.

(h) For determining the fees payable in respect of any proceeding or registration under this Act.

(i) For imposing penalties and fines in respect of any such regulation, provided that no such penalty or fine shall exceed ten pounds.

(2) All such regulations shall, upon being published in the *Government Gazette*, be good and valid in law, provided that a copy of all such regulations be laid before both Houses of Parliament within fourteen days from publications thereof, if Parliament be then in session; otherwise within fourteen days after the commencement of the next ensuing session.

It was resolved, on the motion of Mr. Stinson, that a letter be written Sir Arthur Renwick, informing him that the Board had been unable to complete at one sitting the consideration of the Bill with the view to making the necessary alterations.

The meeting adjourned until Monday, October 23rd, at 8 p.m.

By appointment the Board waited on Sir Arthur Renwick at 10.20 a.m. the following morning. The members of the Board present were Mr. Hodgson (President), Mr. J. Stinson, Mr. C. C. Marshall, Dr. Palmer, and the Registrar. The suggestions of the Board were fully discussed, and Sir Arthur promised to have them included in the Bill.

The ordinary meeting of the Board was held at Board Room on Monday, October 30th. Mr. C. G. Hodgson (President) took the chair at 5 o'clock p.m., there being also present Mr. C. C. Marshall, Mr. C. Hall, Dr. Palmer and Mr. Stinson.

The minutes of previous meetings were read and confirmed. Bank pass book was examined and found correct. A letter was directed to be sent to Mr. Norton Russell, expressing the Board's great regret at his severe illness, and hope of speedy recovery.

The following applications for registration were dealt with: Rowland Webster, Berwick-on-Tweed; Cecil Charlton, North Sydney, D.D.S., Philadelphia Dental College, 1905; George S. Greenwell, Elizabeth Street, Sydney, D.M.D., Harvard, 1905; Leopold J. Bedkober, St. James' Road, Waverley; Reginald W. Fletcher, John Street, Marrickville. With the exception of Rowland Webster, the names as given were ordered to be registered.

The following additions were made to the Register:—Charles Medcalf, D.D.S., University of Pennsylvania, 1905, State Board of Pennsylvannia, 1905: Howard R. Greenwell, D.M.D., Harvard University, 1905, State Board of Massachusetts, 1905.

The application of Gertrude Trudgeon for refund of fee was granted.

The matter of allowing holders of Board examination certificates to use the letters L.D.S. after their names was further discussed, the Board ruling that they had no power to grant such concessions. The date of Board examination was fixed for April 2nd and following days.

A sub-committee, consisting of Mr. Hodgson (President), Mr. Marshall, Mr. Hall and Dr. Palmer was appointed to revise syllabus, to meet on Monday, November 6th, at 8 o'clock.

HORACE TAYLOR, Registrar

GENERAL MEETING OF THE DENTAL PROFESSION.

Held in the Queen's Hall, Sydney, at 8 p.m., on Monday, October 23rd, 1905.

Dr. F. D. Magnus in the chair.

The CHAIRMAN read the notice convening the meeting, as follows: "A general meeting of the members of the dental profession, convened by the executive of the Dental Association of N.S.W., to support the Dentists Act Amending Bill, now before the Legislative Assembly, will be held on Monday next (to-night), October 23rd, 1905, at 8 o'clock, at the Queen's Hall, Pitt Street."

The CHAIRMAN: As you know, the object of the meeting is to get the approval of you all to the passing of this Bill through the Legislative Council. I suppose you are all better acquainted with the Bill than I am myself, but I think it necessary that this Bill should go through, not only for our own protection, but for the protection of the public at large—(hear, hear)—and I hope that every member here will use his influence in any way that he can to further the advancement of this Bill; and I am sure that if the Bill goes through you will not regret it. I have the following apologies for

being unable to attend this evening: Dr. Vickers, Dr. E. Randolph Magnus, Mr. F. L. Davis, and Mr. Horace Taylor. I will now call on Professor Anderson Stuart to move a resolution in favour of this Bill.

Professor ANDERSON STUART: Mr. Chairman and Gentlemen, —The resolution which has been placed in my hands is "That this meeting approves the Dentists Act Amending Bill now before the Legislative Council," and I state quite frankly at the beginning that I hardly feel as if I had that grip and grasp of the Bill which would be a necessary preliminary to any exposition thereof to you on its provisions. As a matter of fact, I understood that another person was to be here who has taken a deep interest in all those matters, not only as regards dentistry, but medicine and the allied sciences for very many years, I mean the introducer of the Bill into Council, Sir Arthur Renwick. In his absence I understand that Dr. Peach, who is fully seized of all the technical details and effect of the Bill, is intending to go over it to you and to explain it to you. For myself, I will say that some time ago, when the matter was under consideration, your representatives, or some of them, were good enough to show me a type-written copy of the Bill, and so far as I could see it was a Bill to which from my point of view, no exception could be taken, and with regard to which there was very much to be said in recommendation of it. In the first place, it helps onwards the movement which has been in progress now for some ten years or so here, and in which I claim to have taken as great a share as any man—(hear, hear)—to raise the status of the dental profession. There are various ways of doing that, but there is one step that must precede all others, and that is to be sure that the dental practitioner is first of all a man of some general education—that is to say, that the dental practitioner should not be allowed to enter the dental profession unless he has at all events such a knowledge and grasp of the rudiments of what is called a general education that afterwards he may take his place in general society without calling a blush to the cheek of any. This Bill provides for that in a fuller measure than has been done before, by making it necessary that the future dental practitioner should pass at least an examination equivalent to that which is passed by

every dental student who enters upon the curriculum of the University. I do not think that anyone in the future—certainly not in the present—should complain of the proposed measure, because I do not think that any man should be able to enter the dental profession with a less degree of proficiency in education than what the University consider should be possessed by the dental practitioner. The possession of what I might call a fair education cannot but be of the greatest assistance to the individuals, and lead to a general raising of the profession in common. From that point of view, therefore, I think that the Amending Bill is eminently satisfactory to the dental profession as a whole, and, seeing it in that way—not letting a man into the profession on a less preliminary examination than the University demands from the point of view of the University—the Bill is by no means unsatisfactory. I am not going into the various clauses of the Bill. Really the only one that interests me is that regarding the preliminary examination; the other clauses in the measure are very much matters concerning the dental profession itself, and I think it would be far better if I, with an expression of what may be called a general approval of the Bill, leave the specific and more or less technical points to be dealt with by Dr. Peach. (Applause.)

Dr. Henry Peach: It gives me very much pleasure indeed to second the motion which Professor Anderson Stuart has so generously proposed. Professor Anderson Stuart has always been most generous to our profession. He has always helped us wherever we have asked him, and I believe in many cases where we have not asked him; and to-night I take it as a very great kindness on his part to come before our profession and tell us that from his standpoint—which naturally is the highest standpoint—that the Bill meets with his approval.

I will deal as briefly as possible with the Bill, for I take it that you do not want anybody to discuss this matter at too great a length, but wish to be placed in possession of the various facts in as definite a manner as possible. In regard to the history of this measure, you are all aware how, when the old Bill was brought into existence, there were very decided difficulties in the way of it becoming law. It was generally conceded that the very greatest

care would have to be exercised in dealing with those who were already practising the dental profession in the State, and, therefore, the Bill could not be as stringent as many of the profession or as the promoters had desired—that it might be passed in such a manner that no injury should be done to those who were already obtaining their livelihood by the practice of our profession. There are many clauses which we would have liked to see more stringent, and also clauses entirely omitted which should have been included. Now this has been in the minds of some members of the profession for a long time, and in various ways they have tried to remedy what I am bound to call some of the evils which we have all had to deplore. Several efforts have been made to get amendments to the present Act. We are indebted to Sir Arthur Renwick for having introduced a previous amendment. It got through the Legislative Council, but, in consequence of some of the clauses being somewhat obscure, when it came before the Legislative Assembly it was at last referred to a committee, and you know once they refer a Bill to a committee, good-bye to the Bill. It never reappeared. Therefore, in drafting a new measure, we must be guided by our experience, that is to say, we must make any amendment so simple and so easily understood that anyone should have no difficulty in regard to it, and certainly it should not be passed on to a Parliamentary Committee of Inquiry. That was the feature which guided the persons who drafted this measure, and I think I can claim for it that at all events it puts our requirements as much in a nut-shell as it is possible to put them in order to get the approval of Parliament.

As to the objects of this Bill, if you will take up the old measure you will find that there are several clauses which you would not approve, at least which you would not approve in any present measure. For instance, the old registration clause: and there are also some clauses there that have a most peculiar effect. I should like to call some of them "boomerang clauses," as they are anything but straightforward, and aim in a very indirect manner. You know what clause (*d*), section 11, has done. It reads:—

> (*d*) has attained the age of twenty-one years, and shall have been a pupil or apprentice for a period of not less than

two years to a dental practitioner entitled to be registered under this Act: Provided that such pupilage or apprenticeship shall have been commenced at least six months before the commencement of this Act, and shall have expired before he shall be entitled to be so registered:

(shall be entitled to be registered as a dentist under this Act.)

Well, that appears to be very straightforward and plain. But it is interpreted to mean that if anybody comes before the Board and makes a sworn statement that even twenty or thirty years ago he had been apprenticed for two years to somebody or other, he is entitled to be put on the register. That is only an example of the sort of boomerang with which this Act abounds, and is one of the prinicpal arguments why we demand that the Bill has to be altered.

Now, gentlemen, to be particular and to come down to the actual amendments. What do we propose?

The second section provides for the repeal of certain clauses in the old Act, Nos. 9, 11, 12 and 13. Clause 9 of the old Act deals with the removals of names from the register. You know that under this clause nobody could be removed from the register short of going to gaol. That clause is not strong enough. We want to see that clause more stringent. Then clause 11 deals with the registration of dentists. That must be removed, because it must give way to thought more in accordance with the views of our friend, Professor Anderson Stuart. In regard to clause 12, it must be altered, because we are not stringent enough with foreign dentists. We said that if he had completed his course in his own country, and allowed to practise there, we would allow him to practise here. In accordance with this proposed Bill, that will not be so in future, because we shall ask that gentleman to appear before our own examiners, and they will see whether the knowledge which he has acquired on his side is the equivalent of that acquired by our own boys, which is only fair, and what other countries would demand of us.

What do we propose to put in place of these repealed clauses? The third clause of the proposed Amending Bill deals with the qualifications necessary for registration, or rather the qualifica-

cations we want to be necessary for registration. The very first one of them is the key-note of the whole section. Sub-section (*a*) deals with the question of private pupilage, and reads as follows:—

(*a*) has passed the entrance examination in the dental curriculum of the University of Sydney, or some examination in the opinion of the Board equivalent thereto, and such other examinations before the examiners appointed by the Board as prescribed, or any equivalent examination approved by the Board in lieu thereof, and has been engaged during four years in the acquirement of professional knowledge with a dentist practising in New South Wales under articles of apprenticeship, or an agreement to study, registered in accordance with the regulations made under the Principal or this Act;

We say we are 1100 strong. We say that we do not mind men coming in, but we do think that we do not want a whole influx of them at one time, and therefore we want to have a reasonable measure to be passed, by which the influx shall be regulated, and only the best admitted: a case, gentlemen, of the survival of the fittest. We have no objection to competition, but we know that if the profession is over-manned, it leads, not to efficiency, but to inefficiency, and the public suffer thereby. This profession must only be manned by men who are acknowledged to be fit for service in the profession. The first sub-section of section 3 is, as I say, the key-note of the whole Bill. It demands that students, before they enter into articles, shall have passed the entrance examination of the Dental School of the Sydney University. That is only fair. We believe that they all should, and for the reasons which our friend, Professor Anderson Stuart, has laid down to-night. If that is so—and I want to show you how that works to the obliteration of the pupilage clauses—there will be no more private pupilage—for this reason, that you give a boy the right to enter the University. Do you think that boy will place himself with a private practitioner? I guess not. You say: "Why not take out the whole clause?" For this reason: this is a very large State; there are boys living in the country who could not be sent to the centre of learning in this State. Now, it is only fair that they should have an opportunity. If they were within the radius of Sydney, they would go to the University, but if living a long distance from Sydney, it is reasonable to suppose that those boys might prefer to place themselves with a practitioner in that particular district. The second clause is an acknowledgment of the degree of dentistry of the Sydney University—a degree which, I take it, in no great length of time will be equal to any degree from any part of the world.

In the next clause we have the one which is to replace that section of the old Act dealing with foreign practitioners—section 12. They must have a degree of such a character as will allow them to practise in the State they came from, together with the endorsement of their State Board. A man comes to this State at present, and is allowed to practise because he happens to have such a registration from some part of the world. In the new Act it says that if he comes he must demonstrate to our Board that he brings with him that information which he claims to be in possession of before he can properly practise his profession upon our public.

Lastly, and here is a clause—the reciprocity clause—for which we have to thank our friend and worthy Vice-President, Mr. Hall. He is the first one I know of who ever suggested such a measure as this, and it is unique in dental, if not in any legislation. I do not know of a reciprocity clause in any enactment of any professional character, but this is a reciprocity clause, and it goes a long way towards solving something which you and I particularly want to see—all these little Acts wiped out of existence, and a fat Commonwealth Act passed, which would do the whole business for us, and which would allow us to travel about a little bit. We cannot do that at present, but, strange to say, people from Tasmania, Victoria, South Australia, and New Zealand are all welcome in New South Wales. We should like them better if they also would accept us in their States. This clause is intended to provide for that. It will allow men to come here from other States and practise, if their Board will also grant permission for our practitioners to practise in their State. This is the first, the only possible way, as far as I know, by which such a matter can be brought about, except the Federal Government would take up this question, which, so far, they have not seen their way to do.

In regard to the 4th clause. That deals with the refusal to place names on the register. There is also something much more important than that—the removal from the register. A man could do almost anything in the past, and went on practising all the same, and our profession was injured by having such an individual amongst our ranks. He will not be able to do that any more. The clause says:—

> (*c*) has been guilty of infamous conduct in any professional respect, misconduct, or of malpractice, either ignorantly, negligently, or wilfully;

the Board may remove his name from the register. Of course, if we did take his name off the register, people would say, "That is a very hard thing," but the right of appeal to the District Court is given, and he can have the decision reversed if he shows good cause. That particular clause was taken from the enactment of the Northern Territories of Canada.

Sub-clause (*d*) reads:—

> "assumes any name, title, word, letters, addition, or description implying or lending to the belief that he is other

than as described in the register, or as is permitted by the regulations made under the Principal Act":

If he does continue to do so, in spite of good taste, and in spite of the thunder of the Board, his name will be taken off, and he can explain his case to the District Court.

Now we come to the 5th clause—an important one. This is a thing in a nutshell, but there is very little shell about it—it is nearly all meat. (Laughter.) It deals with persons not registered assuming the name of dentist, &c. In Great Britain they have a very stringent Act. They have only 7000 dentists, I think; we have 1100. They have about 42,000,000, while we have about 1,500,000 people. They have got one dentist to about 8000 people, and we have got one to every 1200. In Great Britain that Act has also brought about the unregistered practitioner. He does not call himself a dentist, but a "tooth-drawer." He does not stop teeth—he plugs them. He says anything that does not bring him within the clutches of the law. While the registered practitioners are a very small number in Great Britain, the unregistered ones are in greater evidence than are the registered ones. That is a most pitiable condition, and it is brought about by the fact that the Act does not deal with the men who assume these names. The clause in this Act is going to actually catch him. There is what they call a company business. A man can say he is a company, and, if he is a company, that is a fine, dignified title, and of course nobody can interfere with a company, because it is a Britisher's right to make a company. I could tell you of men who have been refused registration by the Dental Board who are companies travelling over the country. They are making good money out of it, more than either you or I. They have nothing to lose, no professional status about them. They move about from town to town. As soon as one town gets too hot for them, they can move on to the next. They can do things which are not only unethical, but which are injurious. The question of companies must be dealt with, and we have endeavoured to deal with it in this proposed Act. A man after this cannot be a company. He has got to practise under his own name.

Sub-clause C is a very important one. There are very serious things occur sometimes. There was a very serious case occurred in this town some time ago. A woman died under an anæsthetic. I say that a dentist who usurps a doctor's functions is just as guilty as anyone who usurps a dentist's functions. That man was not a registered dentist in this State—an unregistered dentist doing dentist's work for somebody over the way. We say that a man shall not employ, in a professional capacity, anybody who has not been registered by the Dental Board unless he be a student in his third or fourth year of service, and as you know there will be no students. If a man is unable to do his own work, he must employ a registered man to do it. But more important than that, it will be a guarantee to the public that the dentist who is working for them is

at least a registered dentist of the State, and is likely to have his registration revoked if he does not do what is required.

Finally: the little Jury Clause. A man may get on the jury for three or four days. His patient will not let anyone else touch their teeth, while, perhaps, she, if it is a she, is suffering agonies because she is a loyal soul, and because your professional brothers will not interfere with your work. I say that the public should not ask a dentist to absent himself from his professional work, leaving some poor creatures in misery. I was so strong about this matter that I took very particular trouble in regard to it, and I succeeded in persuading the Crown law authorities that we were not only dentists, but apothecaries. That is the only way in which we are going to get the jury clause. It seems under a certain Jury Act that apothecaries are exempt. They at last consented to add a jury clause to our Act. You will sleep better at nights, and your patients, too, if they know that you are going to be present in the morning and not on a jury.

When we first started out on this Act, we could see that a new year was coming along directly, and we had better make haste. The last Bill was thrown out, because it was too complicated. We hustled and got this thing out, and when we were satisfied we had got the right thing, and when the Dental Association had gone into it very carefully, we started out to see what sort of assistance we could get. We appealed to the University, and the great chief of the University most generously again came to our assistance, and promptly told us he would personally go with any deputation to the Minister to have the matter made into law. We owe him a deep debt of gratitude. (Hear, hear.) The Odontological Society was very good to us indeed. Their secretary, Mr. Smith, was particularly useful to us. He pointed out what he thought were some inequalities of the Bill, which we have now rectified to make it meet with the approval of the House. The Dental Board are now discussing it. I have very much pleasure in seconding the motion. (Applause.)

Mr. Bradley: I feel rather ashamed of myself after the explanation of Dr. Peach, to find it necessary to ask for some further information in regard to this matter. You said something about it being necessary to pass an equivalent examination to that of the Sydney University. In my reading of sub-clause (*r*), I understand that gentlemen who obtain their qualification elsewhere than Australia do not have to pass the Senior Matriculation of the University. With regard to clause 4 sub-section (*d*), does that allow a man to use the letters "R.D.S."? These letters are very objectionable; I do not like to leave any power of this sort with the Board.

Dr. Peach: The first question is an easy one. When gentlemen come back from the States, unless they have passed an equivalent examination, it is perfectly possible that they will say that they have not passed such an entrance examination. It says, "Pre-

scribed examination before the Board." In the majority of cases it will be necessary for him to have passed an examination which will be an equivalent, but in the case you speak of the Board will have the power to demand it.

Professor ANDERSON STUART: I have this here in my copy of the Act. As I told you, I do not want to go into the technicalities of it. You know that (*c*) deals with "outsiders." The subclause demands that they shall have passed an examination equivalent to ours, and also put in four years' work.

Mr. ED. MARSHALL: I would like to know if Dr. Peach really means that we are apothecaries or not. I think a good few dentists would be glad to have 10s. a day to serve on juries. We do not want to call ourselves apothecaries. I heard something a little bit down on the Dental Board. Messrs. Peach and Hall know that there is a meeting to-night of the Dental Board considering this Bill. I tell this meeting that the quorum of the Board could not sit because Messrs. Peach and Hall were not present. These men call this meeting in order to take the kudos for themselves. That Bill would have gone through the Board, through the properly constituted body, in the ordinary course. There was a letter sent from the President of that Board, requesting particularly that every member of that Board should attend, because the matter was so important.

Mr. FITZSIMONS: Is Mr. Marshall aware that when this Bill has been before the Dental Association, the members of the Dental Board had an invitation to discuss it? The President of the Dental Board is a member of the Dental Association, and has had an opportunity of being present at the special meeting called for the purpose of discussing this Bill. We invited them to attend the deputation which waited on the Colonial Secretary to introduce that measure. They have had an opportunity for the last two years to consider this measure, and it is this thing that has blocked its passage. We object to the Dental Board preparing legislation. They are there to administer it. (Hear, hear.)

Mr. LEONARD GABRIEL: As far as I am personally concerned, I would like to say a few words in justice to those young men who are at present apprenticed to dentists. I quite understand Dr. Peach when he said that this would do away with private pupilage. That is satisfactory. Still it would be only fair to those who have paid premiums that they should not have restrictions placed upon them.

Mr. BLACKWELL: I would like to ask Professor Anderson Stuart what his feeling is in regard to the first section of clause 5. It reads:—

> "After the passing of this Act, no person other than a legally-qualified medical practitioner, unless registered under this Act or the Principal Act, shall—
>
> (*a*) Take, use, or adopt the name, title, or description

of 'dentist,' or 'dental practitioner,' or 'dental surgeon,' or 'surgeon dentist,' &c., &c."

It seems an anomaly. I do not see how a member of the medical profession, putting it as the highest branch of the professions, is capable of performing dental work, seeing how much depends on mechanical skill and technical knowledge necessary to perform that work. I do not for a moment anticipate that there will be a rush of medical men to do the work done by dentists. At the same time, it strikes me as an anomaly.

Professor ANDERSON STUART: I saw this from the beginning, but the position I took up was this, that the registered medical man is supposed to be qualified to do anything in the way of either surgical or medical work, and, while it is true that no medical man is qualified to do dental work (I mean excepting drawing teeth and things of that sort) without special qualifications, still it seemed to me that unless you can assume that the medical qualification entitles a man to interfere with the body in any way whatsoever, you are quite likely to have considerable opposition to the Bill. I am certain that you have a much better chance of getting the measure through than if you altered it so as to make a medical man unable to practise dentistry. The line between medical and dental practices is not a very sharp one, and you dentists practise surgery unquestionably.

Dr. F. D. MAGNUS (Chairman): Every Bill passed in the Commonwealth and in England has that same clause.

The motion was put to the meeting and carried unanimously.

Mr. CHARLES HALL: Mr. Chairman and gentlemen—The lot that falls to me is a very easy one. It is to move:—"That this meeting of dentists of the State of New South Wales pledge themselves to use their individual and collective efforts to secure the passing of the proposed Dentists Act Amending Bill now before the Legislative Council." There is not the slightest doubt that we do want a new Bill, and I regret very much that there is just one little note of discord in what has been said to-night. It has been my hope that this meeting should be a thoroughly harmonious one. But there is a little thing requiring an explanation, which is about the Dental Board meeting to-night. It was called for the consideration of the Amending Bill, and I received the notice of it on Saturday afternoon after business hours, and their meeting is to-night (Monday). This meeting has been advertised for a long time. I have seen the notices about for more than a week. Then why was the Dental Board meeting called for to-night? The inference is exactly the reverse to the way Mr. Marshall has put it, and I say that, as a member of the Dental Board, I have not had proper and due notice to attend a Dental Board meeting this evening. (Hear, hear.) Undoubtedly this motion that I have the pleasure to move to-night should go through this meeting, and reverberate through the whole of the State, because an amendment to the old Bill is an urgent necessity. We want to show the

people of the State and the Parliament of the State that we are in deadly earnest. We want to show other States afar off that we are making advances along the line that every State is making—the elevation of the status of our profession. Registered men can be reckoned amongst the pioneers of the profession here, and I believe that consideration is due to us as pioneers, for what we have done in the past. By our service in the past we have acquired the right for the future to be our consideration, and, in the future, things must be different: for that reason we have formed the proposed Act in such a way that it practically places the control of this profession in the hands of our University, and I believe that it is rightly so. I do not always say things too good about our University, and I hold myself quite free to criticise them when it appears necessary, but I believe in this particular instance that we are right in placing the future of the dental profession in their hands—(hear, hear)—and that is what this Bill means. In educational advancement we must either go along with the tide or we must breast it, like Canute of old (and we know what happened to him). We have got to act up to the age we live in, and if we move with the times we shall gain a certain amount of power and prestige that way. (Applause.) There is also a very acceptable point to us—the bulk of the profession—and it is, that every improvement on the old Act makes our position so much more valuable. There are clauses in this Bill, that while it limits the entrance of others, it makes our position more advantageous. I speak of those who are not graduates, and whose position will be eminently improved by the passing of this measure. On these grounds, gentlemen, I ask that you give your support and interest to push it along for all you are worth, and that we work in harmony with that grand educational institution of which we are so justly proud—our University.

Mr. Dolan, L.D.S.: I have very much pleasure in rising to second the resolution of Mr. Hall. I find very little to cavil at in this measure. It is not perfection. There are one or two points I would like to see altered, but it is a very big step in advance. I think it is our duty to give it all the support we can. As a locally-made dentist, I feel very great pleasure in reading the clause which requires that all foreign dentists will have to pass the Dental Board examination before they are registered here. I should have liked to see some mention of a four-years' course, but, apart from that, I see very little to cavil at in the Amending Bill. For that reason I have very great pleasure in seconding Mr. Hall's resolution.

The motion was put to the meeting, and carried unanimously.

Mr. Blackwell: Is it proposed to do anything more than move that last motion? Are we to receive no definite instruction (if I may use the word) as to what is to be done to further the object of the meeting? We hardly know what steps will be taken to ensure the object of this meeting being carried out. How is Parliament going to know?

Professor ANDERSON STUART: Mr. Blackwell has asked a very important question, because, while this meeting is big and representative and powerful as a meeting, when the members go away they dissolve like snowflakes. It might be a good thing if we had a mass deputation. The Dental Association officials might send out a circular to the members of the dental profession in the metropolis, and name a day that the Government had agreed to receive a deputation, and gentlemen who were willing to go to that deputation might signify their intention of so doing. I should be very glad to go with you—(hear, hear)—and I beg to move a resolution to that effect.

The CHAIRMAN put Professor Anderson Stuart's motion, seconded by Mr. Donald Smith, as follows:—"That we form ourselves into a deputation to wait on the Government, asking them to expedite the measure which Sir Arthur Renwick has introduced into the Legislative Council."

Carried.

Mr. DONALD SMITH: I have been asked to perform a duty exceedingly simple and pleasing, which is to move a vote of thanks to Sir Arthur Renwick for the many valuable services performed by him in connection with dental legislation. I have very much pleasure in moving that resolution, because I have had the pleasure of knowing Sir Arthur Renwick for very many years. There is no doubt whatever that personally Sir Arthur has done a great deal both for the medical and dental professions. He has introduced on a previous occasion a Dental Act in 1902, which, although it passed the Upper House, did not pass the Lower House; and he has again taken up this task on our behalf, for which we owe him a deep debt of gratitude. (Hear, hear.) I would like to say, on behalf of the President of the Odontological Society, who is unable to be present to-night, how heartily we support, and have supported in the past, the Dental Association in regard to this Bill. We feel that whether the Bill is introduced by the Dental Association or by the Dental Board, it does not matter a button. The Bill, after all, is the main thing. I am sorry that the meeting has been disturbed. We have, as dentists, agreed that this Bill is necessary. That was the platform on which the Dental Board was elected. I think that any attempt of this sort, coming from the Dental Association, should be heartily supported by the profession. I think that it contains many clauses exceedingly beneficial. In regard to the Jury Clause. On one occasion I appealed to the Judge, and he said that he thought I came under the class of apothecaries, and I was, therefore, excused.

Mr. E. GILLMAN-MOON: It gives me very great pleasure to second this resolution, because I feel that we are especially under a debt of gratitude to Sir Arthur Renwick, inasmuch as not being a member of our profession, he has been good enough to give his services and his time in forwarding our interests. One of these days I hope that some of our members will have made sufficient money

to enable them to devote some of their spare time to the interests of our profession in the Legislative Assembly, but as we have not any representatives at present, we are under a debt of gratitude to a gentleman who is cognisant of our needs to a great extent, because what the needs in our profession are, are practically needs in his, and he is one well qualified to look after our interests. I have much pleasure, therefore, in seconding the resolution.

The CHAIRMAN put the following motion:—"That this meeting, recognising the many valuable services that Sir Arthur Renwick has rendered our profession, we desire to record him a very hearty vote of thanks."

Carried by acclamation.

Professor ANDERSON STUART: I beg to move a vote of thanks to the chairman.

Dr. F. D. MAGNUS returned thanks in a few graceful phrases, and the meeting then terminated.

CORRESPONDENCE.

GENERAL MEETING OF DENTAL PROFESSION.

Held October 23rd, 1905.

(To the Editor *Australian Journal of Dentistry.*)

Sydney, 22nd November, 1905.

Sir,—On behalf of the Dental Board, I take exception to the statements made by two of the speakers at the above meeting as reported.

In fairness kindly give the same publicity in your *next* issue to *this* contradiction:—

Mr. Fitzsimons is reported as follows: "Is Mr. Marshall aware that when this Bill has been before the Dental Association, the members of the Dental Board had an invitation to discuss it?"

The facts are, a copy of the Dental Association Amended Bill was received by the Board during their meeting on May 29th, and, as there was no time to discuss the matter at that meeting, it was resolved to call a special meeting for that purpose, and both Dr. Peach and Mr. Hall, being present, concurred in the date fixed for such meeting, which was called for June 8th. At such meet-

ing, Dr. Peach and Mr. Hall assured the meeting that the Amended Bill had already been presented under deputation to the Minister. The meeting, being useless, therefore lapsed.

Later Mr. Fitzsimons is reported to have said: "We invited them (the Board) to attend the deputation which waited on the Colonial Secretary to introduce that measure."

This is *not* correct, as *no* invitation was extended to the Board for such a purpose.

Again you report Mr. C. Hall as having given utterance to the following: "But there is one little matter requiring an explanation, which is about the Dental Board meeting to-night. It was called for the consideration of the Amending Bill, and I received notice of it on Saturday afternoon after business hours, and their meeting is to-night (Monday). *This* meeting has been advertised for a long time—I have seen the notice about for more than a week —then why was the Dental Board meeting called for to-night? The inference is exactly the reverse to the way Mr. Marshall has put it, and I say that, as a member of the Dental Board, I have not had proper and due notice to attend a Dental Board meeting this evening." (Hear, hear.)

The minutes of the Dental Board will show that consideration of the Amending Bill was asked of the Board after its first reading in the Legislative Council, and a special meeting was duly and properly called for at the earliest possible date, viz., Friday, October 19th, for that purpose. Of the eight members of the Dental Board, only five attended, although a special note was added to the notice sent to each individual member, pointing out the urgency and importance of the meeting. Of the three absentees, I regret to say Mr. Norton Russell was prevented from attending by a serious illness, Mr. Hall sent an apology, Dr. Peach was absent.

The Board was unable to complete the consideration of the Bill at that meeting, and a note to that effect was sent to Sir Arthur Renwick, and the meeting adjourned until the next earliest possible date, viz., Monday, October 23rd, when again there were but five members present—sickness still preventing Mr. Russell's attendance, a note of apology being received from Mr. Hall, Dr. Peach being simply absent again.

At this "adjourned" meeting, after finally considering the Bill, it was resolved that the Board should wait upon Sir Arthur Renwick without delay, and, while placing before him the Consolidating Bill already framed by the Board, make it clear to him that this Board, rather than jeopardise legislation, would suggest certain amendments to the Bill now before Parliament, which had been put before them for consideration.

By appointment the Board waited on Sir Arthur Renwick at 10.30 the following morning (Tuesday). The following members

of the Board attended the appointment: The President, Mr. Stinson, Mr. Marshall, Dr. Palmer and the Registrar.

In conclusion, I must point out that authentic official records of all the Board's doings are duly kept, and, as the Board represents the profession as a whole, it is open to any individual dentist to satisfy his curiosity on any point by enquiry made officially through the Registrar.

I now leave the aforesaid facts to the intelligence of your readers for guidance in forming an opinion on the whole matter.—Yours faithfully,

C. G. HODGSON.
President Dental Board of N.S.W.

NEW ZEALAND.

THE TEETH OF OUR CHILDREN.

(A PLEA FOR THEIR BETTER CARE AND PRESERVATION.)

(A paper read before the Dental Conference, at Wellington, on Wednesday, the 7th June, 1905. By F. W. Thompson, President of the Christchurch Odontological Society.)

PREFACE.—When I was invited to read a paper on the teeth of children before the first meeting of the Dental Conference, I was peculiarly gratified at the subject selected for me. It is a subject the surpassing importance of which, in its relation to the public health, cannot be exaggerated. The teeth of, I venture to say, 98 per cent. of our children do not receive the care they deserve. The result is that already early in life, in the overwhelming majority of cases, the apparatus provided by nature for the proper performance of one of the most, if not the most, important of all physiological functions is sadly impaired. The processes of nature are evolutionary, not revolutionary, in character, and the evil effects of neglect in any given direction may not be visible in a day; nevertheless, I have no hesitation in asserting that defective teeth and an unclean condition of the mouth, which is the common thing, instead of the rare exception, are amongst the most potent of the causes which are making for that physical and moral degeneration of the race, signs of which are even now engaging the attention of the more thoughtful among us. To my mind, let me add by way of warning, it is evidence of shallow and immature thought to suppose that evolution necessarily spells progress and improvement. I can conceive circumstances under which it may mean ruin. History furnishes us with more than one instance of progressive degeneration. I do not suppose

that any measures man can devise will solve the problem of eternal life for the body politic, any more than it is possible to make a mortal immortal. But, just as Tennyson was able to exclaim.

> "Yet I doubt not through the ages one increasing purpose runs,
> And the thoughts of men are widened with the process of the suns."

So, I think, is it possible to lengthen, as we go on, the span of our historic cycles. By adopting precautions where precautions are needed, by improving where improvement is required, by holding neglect—the arch-enemy of mankind—at arm's length, we can, I doubt not, retard degeneration and fulfil the "increasing purpose" of which Tennyson speaks.

The facts and opinions of leading authorities, which I have been able to collect and quote in the following paper, will, I hope, convince the most sceptical that one of the most important of the ways in which we can preserve the national health and vigour, in body and in mind, is by proper attention to the teeth of our children. I hope, too, that I shall have succeeded in convincing them that Governmental interference in the shape of legislation in the direction indicated in the paper is urgently necessary to check the present deplorable conditions. I have not overloaded my paper with statistics. I might, indeed, have multiplied these indefinitely. I think, however, that a few judiciously selected from unimpeachable sources are capable of affording an accurate idea of the real situation, quite as much as wearisome pages and columns of figures, which are only intelligible to an expert statistician.

In conclusion, I would add that the care of the teeth of children is a subject to which I have given long and earnest thought and attention, and one on which I feel very deeply. If this paper succeeds in bringing home to the public mind, in ever so little a degree, the vital importance and solemnity of the question, I shall have been more than repaid for the time and trouble its preparation has cost me.

Of the Condition of the Teeth of School-children, and the Remedy for the State of Things.

The subject of this address, gentlemen, is of the state of the teeth of school-children, and of the remedial measures necessary to deal successfully with actual conditions of a most deplorable character.

Importance to Public Health.—No question, I take it, deserves more the earnest attention, not only of the members of this association, but of the general public. It is as important a question as any affecting the public health. So little is this recognised at present, however, either by the Government or the general public, that whilst the most elaborate regulations for the preservation of the public health are enforced in other respects, in this one—a proper regard for which is indisputably a basic condition of really good health—no legislation or attempt at legislation has ever been made.

So important and representative a body as the Fourth International Dental Congress would not have lent its authority to a campaign in this behalf were the matter not one deserving immediate action. Let me, therefore, read to you the terms of a resolution adopted unanimously by that assembly. It is as follows: "Resolved, That public dental services should be organised in hospitals, schools, factories, &c., and wherever the poor are medically treated, that they may receive not only urgent medical and surgical attention (whether as to dressings, consultation, temporary fillings, or extractions), but that, so far as possible, thorough treatment be given to restore the dental organs by means of the resources which modern dentistry affords, and such as is employed in the private practice of dentistry, and as is the case in the dispensary practice of general medicine and surgery; that is to say, not emergency treatment only, but thorough dentistry is demanded for the poorer classes."

Sound teeth must be considered as the basis of good health. No precise statistics, unfortunately, are available to show the extent to which illness generally is ultimately traceable to a bad state of the teeth. It is, however, I think, unquestionable that poor health is more often than not solely due to a defective condition of the teeth. For, apart altogether from the question of good looks and the ability to speak distinctly, both of which depend to no small extent upon the possession of good teeth, it is quite obvious that without the latter the proper mastication and insalivation of food is impossible. This gives rise to various constitutional disturbances—especially abdominal affections—which must in time have a deleterious effect upon the nervous system. One hears a good deal of the relation of diet to physical health, and I do not for a moment suggest that the question of suitable food is not one of first-rate importance. Still, gentlemen, there appears to me to be some danger here, if I may be pardoned the use of the expression, of "putting the cart before the horse." The kind of food an individual eats can only be of minor importance when he is no longer in a position to masticate it properly.

Ultimate Results.—In view, then, of the considerations I have briefly enumerated, I think there will be no hesitation in accepting the very grave conclusion that anything like a frequent occurrence of defective teeth must eventually and fatally issue in the physical and moral degeneration. This being so, care of the health of the mouth and the preservation (I use the word advisedly) of the apparatus which nature has provided for the proper mastication of food is a matter of national importance, and, as such, worthy of State supervision.

State Action Justified.—In no direction is State interference more justified and more praiseworthy than in the measures it devises in the interests of public health, and those interests can only be served properly by insuring, as far as it is possible to do so, the preservation of the teeth of the community.

BAD TEETH AMONGST CHILDREN.—To the members of our profession it is a well-known fact that the overwhelming proportion of defective dentition dates from childhood. The ignorance of parents regarding the physiological functions of the teeth, their apathy in impressing upon children the importance of giving proper attention to them, and their complete indifference regarding the state of their children's mouths until toothache at last indicates the fatal inroads of decay are proverbial. Children are for the most part taught to wash their hands and bathe their bodies. How many are warned of the surpassing importance of attending to the mouth, "the very vestibule of life," as one writer eloquently describes it? It is this sad neglect which is at the bottom of that unhappy state of things to which I now propose to refer in some detail.

That bad teeth are extremely common amongst children is admitted by all competent observers. We in New Zealand should know it well enough. Whether it be that youngsters eat too much meat, itself very bad for the teeth; whether it is attributable to the water; whether parental neglect be answerable, I will not say ignorance, because the standard of education here is exceptionally high; whether it be due to the worthless tooth-brushes, the bad powders and washes one so often comes across; in a word, whatever the cause or causes, one thing is certain, that the teeth of our children are anything rather than what they should be. Decayed and infectious-coated teeth, offensive breath, a conspicuous display of discoloured fillings, and that exceedingly common and hideous monstrosity, when conspicuous—the gold crown—are everywhere to be seen.

I was invited recently to examine the teeth of the children in a Christchurch primary school, so that I am in a position to speak on this subject from first-hand knowledge. The results of my examination were really alarming. I examined 106 children—all, of course, with many of their so-called permanent teeth. There were 34 girls between the ages of nine and twelve, 41 girls between the ages of thirteen and fourteen, and 31 boys between ten and eleven years of age. Of all these, only one child, a boy, had all the teeth sound, and he was a native of Australia. Not one New Zealand-born child had sound, permanent teeth. Moreover, the boy with the sound teeth was a recent arrival in the colony. Of the 105 others, about four had their teeth stopped, and to that extent their mouths could be said to be in good order. By immediate attention the teeth of about 40 per cent. of the children could be easily saved; the rest were too far gone to admit of really satisfactory treatment of a conservative character. One girl of eleven had a few artificial teeth. Many of the six-year-old molars had been extracted, and a larger proportion had decayed and broken away, so that only the stumps were left. The gums were naturally in a most unhealthy condition, and the children would, of course, find it impossible to masticate their food properly. They are now laying the foundations of what in after-life will, alas! only too certainly determine physical ill-

health, ay, and moral ill health also. Let me add that the number of scholars attending Government schools is to-day upwards of 130,000.

To the average man or woman, boy or girl, of to-day it cannot, unfortunately, be said, in the beautiful words of Solomon, addressed to the daughter of Zion, "Thy teeth are like a flock of sheep, even shorn, which go up from the washing, whereof every one bearest twins, and there is not one barren among them."

Whether the mother lacks the nutrition to form the calcium salts necessary to the enamel substance in the child *in utero*, for caps of enamel and dentine of the twenty temporary and four permanent first molars are formed before birth. The first month after birth the eight permanent incisors and four canines are also formed, and at the third and twelfth years respectively calcification has commenced on the second molars and wisdom teeth. The entire crown of each tooth is represented in soft tissue before deposition of earthly salts commences. Whether, after birth, the child is usually fed by artificial means instead of the "source" provided by nature; and, even then, I doubt not that many teeth, if able to, would exclaim in the words of Goldsmith—

> "Thou source of all my bliss and all my woe,
> That found'st me poor at first, and keep'st me so."

CARIES OF TEETH A NORMAL CONDITION WITH CHILDREN.—In a paper on "The Care of the Teeth during School Life," read before the Congress on School Hygiene at Nürnberg, last year, the author (an M.R.C.S. and an L.D.S.) made the following remark: "It may be said, I think, that decay of teeth is the most common departure from the normal which occur amongst children; indeed, the figures which have been carefully compiled lead one to say that carious teeth have become the normal thing to be noted in young mouths.

STATISTICS.—What are these figures? Let us pause to consider them for a bit. Gathered as they have been in all parts of the world, they are distinctly interesting, and fully bear out the contention of the writer from whom I have just quoted.

AN ENGLISH PUBLIC SCHOOL.—Of some twelve hundred boys, of an average of thirteen years and ten months, who, in a period of nine years, passed through one of the English public schools, only three in every hundred were found to possess sound teeth. Of the remainder, 18 per cent. were artificially sound, in the sense that they had been treated, and the balance of 79 per cent. required treatment. Seventy-nine out of every hundred of those boys required treatment and had not received it. The authority from whom I take these startling figures states that the average number of teeth per boy requiring attention was 3.8, a mean between ratios of 2.19 at thirteen years and 6.16 at seventeen years. And, mind you, these boys were boys of good social position. These figures appear to me to be eloquent with meaning.

THE POOR CLASSES IN ENGLAND.—What is the position in this respect, you may ask, of the poorer classes in England? Figures collected in poor-law schools, workhouses and reformatories by the British Dental Association shall help us to form an opinion. But it may be well to preface them with an observation of great truth contained in an article on this question by Mr. Sidney Spokes, M.R.C.S., L.D.S., who says that "in England the children of the poorest are in many ways better off than those next above them in the social scale. The Poor Law Guardians, who stand *in loco parentis*, appear on the whole to recognise their responsibilities to the children." Well, of 10,500 English and Scotch children of both sexes, and of an average age of twelve years, 14 per cent. only were sound. The remainder had 37,000 unsound teeth among them, of which 18,000 were temporary and 19,000 were permanent teeth.

THE POSITION ABROAD.—The position abroad is just as bad as it is at home. Let us take the case of Germany. Dr. Jessen, of Strasburg, assures us that out of 4,000 children—half boys and half girls—who were examined in one year in that city, only 104 had a perfect set of teeth. The proportion of defective dentition was 97.5 per cent of the total number, and yet only 2.62 per cent. had received treatment, apart, says Dr. Jessen, "from the children who had on occasion painful or loose teeth extracted." The same results, approximately, were found in many other German cities, and the percentage of bad teeth per mouth varied between 22 per cent. and 33 per cent.

In Russia, again, much the same conditions prevail. Monsieur Gabronsky, the delegate representing the Russian Government at the International Congress on School Hygiene last year, assured the Congress that statistics obtained in many cities all over Europe revealed the fact that 95 per cent. of all school-children possessed carious teeth. Statistics based on the examination of a very large number of girls in various Russian schools—and girls are somewhat worse than boys as regards the condition of their teeth—show that from 92 to 95 per cent. had imperfect teeth.

In America 93 per cent. of children have their teeth affected. In Italy the percentage is 92, and in Switzerland it varied from 90 to 100 per cent. In Norway, Sweden, Denmark, Hungary and other States the figures are very similar.

THE CASES OF FILIPINOS AND CHINESE.—It is interesting to observe that defective dentition is by no means confined to European children. Dr. Louis Ottofy, of Manila, in a paper on "International Examination and Tabulation of the Condition of the Teeth of Public School Children," read before the Fourth International Dental Congress, gave the result of what is believed to be the first examination of the teeth of other than Caucasian children. Five hundred Filipino and Chinese pupils, half boys and half girls, were examined by Dr. Ottofy in the public schools of Manila. "The average of carious teeth in males," he says, "was 24.50 per cent., in

females 31.40 per cent., in both sexes 27.95 per cent. . . . None of the boys had received any dental attention, and only one girl. . . . The average number of teeth present in each child was 24.9: while in white, American and European children, the average is somewhat under 23. . . . Only thirteen of the 250 boys had every tooth sound; of the 250 girls only eleven had every tooth sound, or one-half of 1 per cent."

In another examination of fifty boys, all of pure Chinese parentage, Dr. Ottofy found 78 per cent. of sound and 22 per cent. of carious teeth, which is somewhat better than the European average.

CONCLUSIONS SUGGESTED BY THE FIGURES QUOTED.—I think I have now made it clear to you that dental trouble is the most common of all diseases, and if, as we learned from the quotation with which I prefaced these statistics, "carious teeth have become the normal thing to be noted in young mouths," so now we can have no difficulty in realising with Dr. Jessen, of Strasburg, that "to-day caries of the teeth has become a general disease, since from 78 per cent. to 99 per cent. of the human race have had teeth. Among school children scarcely 2 per cent. possess a healthy set of teeth."

SOME CAUSES CONSIDERED IN DETAIL.—To what, now, I would ask you, are we to attribute this sorry state of things? I have already, in an earlier part of my address, made passing reference to some of the causes, but I think we may well examine two of them in greater detail, seeing that a consideration of these will suggest the remedy which it is my purpose to advocate.

The first and most important is undoubtedly neglect to attend to the teeth at the proper time. It would be superfluous for me to tell you how attention to the teeth is almost invariably postponed until toothache insistently claims attention. The public do not seem to recognise that preventive and preservative treatment should be the chief work of a dental surgeon. With their conception of a dentist, I am quite sure that ninety-nine persons out of a hundred associate solely the idea of wrenching out teeth.

PARENTAL NEGLECT.—"Parents," writes Mr. J. Isherwood Shirrock, L.D.S., England, "do not in these modern times attend to the requirements in contradistinction to the wants of their children as they did heretofore. . . . A clear recognition is needed of the fact that a knowledge of the teeth and their care and preservation is an essential factor in a child's education. If the child could be educated from the earliest period when it is able to grasp facts and the necessity for thorough care of its teeth, the health, wealth, and prosperity of schools would be established." No doubt a certain proportion of bad teeth are due to heredity, to constitutional illness, and the like, but certainly the vast majority of cases can be traced to neglect, want of prophylactic treatment, and, as Monsieur Gabronsky points out, to "the false conviction of the public that stopping for the milk teeth is unnecessary, because these must fall out and their places are immediately taken by healthy teeth." It is only too true that

parents do habitually take notice of the condition of the teeth of their children only when decay has done its work. There may be, and undoubtedly there are, a variety of predisposing causes, but, as compared with parental neglect, all others fade into significance.

IGNORANCE OF THE PRINCIPLES OF HYGIENE.—I now come to the second of the causes to which I referred above, namely, general ignorance on the part of the public of the principles of dental hygiene. There can be no question that parents and children alike are shockingly ignorant of the evils attendant upon the neglect of their teeth, and some effort to enlighten them by making them acquainted with the facts is imperative. "The instruction of parents is an urgent matter, both with regard to proper feeding and the necessity for mouth-cleaning. At present, even when their children's urgent condition is pointed out, they frequently neglect the warning. "At all events," continues Mr. Sidney Spokes, from whom I am now quoting, "if the parents are to remain ignorant, let the children receive at school some instruction as to the importance of personal hygiene and the careful treatment of their teeth." When we realise the enormous number of school children growing up to constitute the men and women of to-morrow, when we remember that they will be the progenitors of yet another generation of the human race, we cannot but admit the supreme importance of doing everything in our power to make them sound and healthy, and to instil in their minds those momentous principles of hygiene, observation of which can alone insure that our descendants shall not cast upon us the terrible reproach that in the selfishness of our own existence we gave no thought to those who were to follow us.

I have now described to you the details of what is, I think, a universal and alarming state of things. I have discussed at some length the causes thereof, and I have indicated some of the consequences. Perhaps a few further remarks in regard to the latter may not be superfluous. Bad teeth in childhood must, of course, determine defective dentition in after years. The state of the teeth in the army in various countries indubitably demonstrates this. In his speech in the House of Commons, on the introduction of the Army Estimates in 1899, the Secretary of State for War said—

ARMY STATISTICS.—"He was sorry to say that 35 per cent. of those who offered themselves were rejected on medical grounds. A good many of the rejections were due to bad teeth, and a large number to the lack of general development. It occurred to him that in elementary schools supported by public funds, it might not be impossible to teach the children to take elementary precautions for the preservation of their teeth.

Dr. Jessen, whom I have already quoted to you this evening, supplies some interesting statistics. According to him, Cunningham found in the English army 96 per cent. of men with bad teeth, the average number of carious teeth per head being 7.5. In the German army the percentage of men affected seems to vary from

79 per cent. to 95 per cent., and the number of bad teeth from 6.9 to 9.60.

ABSENCE FROM SCHOOL.—Another consequence of the neglect of the teeth of school-children is the serious economic loss in school time owing to absence on account of toothache. In elementary schools at home, 17 per cent. of scholars are daily absent. We may rest assured that a very considerable portion of this absence is directly due to teeth trouble or to illness attributable to neglect of the teeth, and that it would be obviated were the teeth properly looked after. The extent of the loss may be best realised by a computation made by Dr. H. L. Ambler, of Cleveland, Ohio, and referred to by him in a paper read before the Fourth International Dental Congress on "The Care of the Teeth of the Poor." Taking the number of children of school age (five years to twenty years) in the United States at 15,000,000 on the moderate assumption that each child loses one hour in the school year, "at the end of the year there will have been lost," says Dr. Ambler, "more than 14,000 school years. Is it not reasonable to presume that 3 or 4 per cent. of this time has been lost on account of dental lesions?" No comment seems to me to be required.

EFFECT ON HEALTH.—I have already spoken of the effect upon health, but perhaps it may be well to emphasise this aspect of the question. The age of change of teeth is a very critical time in child-life. "It is the time," says one authority, "when the child enters the school, and great claims are made upon his body and mind. Only a strong, healthy body is equal to the test, for the healthy mind can only be found together with the former. The mouth especially must be healthy, because that is the entrance to the body." Healthy teeth are again the first condition of a healthy mouth. Chronic diseases of the stomach and intestines are largely caused by badly masticated food, and Berthon asserts that "many of the illnesses of school-children, such as headache, faintness, loss of appetite, poorness and want of blood, can be traced principally to diseased teeth." Microbes rapidly breed in an unclean mouth, and, together with other rotten products, are carried by the breath and by the saliva into the lungs and stomach, and thence by way of the lymphatic glands into the body. The report of the Inter-Departmental Committee on Physical Deterioration in Scotland, set up last year, says that, if not an indication of degeneration, the present condition of things regarding the teeth of the people contributes to the causes producing degeneration by the poison which dental caries introduces into the system and the gastric disorders that arise therefrom.

Before I leave this part of my subject, I should like to quote a passage to you from an article entitled "Bad Teeth and Disease," which appeared in the *Press* of the 18th January last. In that article, Dr. Louis Henry, assistant physician at the Prince Alfred Hospital, pointed out that the physical development of the race is largely in-

fluenced by the condition of the teeth. "The mouth," says Dr. Henry, "forms a most prolific culture-bed for all kinds of bacteria, and a person suffering from dental decay is constantly swallowing injurious germs of various kinds." Dr. Henry made observations on six hundred patients in twelve months, the cases comprising various forms of gastric and intestinal disturbances, rheumatism, anæmia, bronchial and pulmonary affections, enlarged glands, adenoids, disturbances of eye and ear, throat-inflammations and neurosis. He found that over 80 per cent of these were associated with dental decay in advanced stages. Two typical cases are those of a boy and a business man, both of whom had bad teeth. The boy came to the hospital on crutches, but three weeks after his teeth were removed he walked home without crutches. The business man was in a state of rapid decline, but after his teeth had been attended to he became completely convalescent and resumed work. Dr. Henry believes that most infants are born healthy, and that as a rule the decay of teeth and ill health are due to improper feeding. The belief in lime-water as a bone-former is a popular error, because the lime required in food does not come from the water, but from the solid particles of the food conumed, and the lime in water has no influence on the process of animal nutrition. The use of white bread should be discouraged, especially in the case of children, and a bread made of flour containing all its natural ingredients substituted. Dr. Henry pleads for the periodical inspection of the teeth of State school-children.

There is probably no reason to suppose that the teeth of colonial children are in a better state than those of the children of Germany, England, and America, and dental statistics gathered in these last three countries show an alarming state of affairs. Over 40 per cent. of the teeth examined in children attending school in Germany were bad. In England, 75 per cent. of the children examined had bad teeth. In the United States, 95 per cent. of the children of the poorer classes had carious teeth, and in the hospitals of New York it is stated that the diseases of the digestive organs which come from decayed teeth far outnumber those from all other causes put together.

THE REMEDIES DISCUSSED.—What remedies, then, for this curse of civilisation ought we, as an association, to advocate unceasingly? I think there are two. In the first place, instruction to parents and children in the principles of hygiene and the importance of devoting the utmost care to the preservation of the teeth is very desirable.

TEACHING OF HYGIENE.—Let me read to you the proposals of the Physical Deterioration Committee in regard to this. You will with me certainly have no difficulty in indorsing them. They are as follows:—

"1. That the teaching of the elements of hygiene should be made compulsory in schools, and that in this teaching the care of the teeth should receive special attention.

"2. That the daily cleansing of the teeth should be enforced by parents and teachers."

Gentlemen, the third proposal which I am about to read to you enunciates the second and the most important of the remedies I have to recommend. It is as follows:—

SYSTEMATIC EXAMINATION OF THE TEETH OF SCHOOL-CHILDREN.—"3. That the systematic examination of the teeth of children by competent dentists, employed by school authorities, should be practised where possible to prevent caries extending, to stop carious teeth, and to remedy defects of the teeth.

Yet, gentlemen, however much you may instil the principles of hygiene into the minds of the young, you will never by that measure alone cope successfully with this dreadful evil. Again, speaking with Dr. Jessen, I say that the instruction of children in the school and the inspection and treatment of their teeth in denal surgeries form the only weapons by which this world-wide evil can be combated. "If the mouths of children in public schools could be examined by competent dentists, carious or diseased teeth filled or extracted, and instructions given and enforced with regard to the intelligent use of brushes and antiseptics, the death-rate of this country would be very materially lessened," said an American doctor recently, "the percentage of illness must be reduced, and a strong and more vigorous race result." Every authority I have been able to examine says the same thing. Every one of them advocates frequent and compulsory examination of the mouths of children. Every one of them says that such a measure, and such a measure alone, is calculated to improve the teeth of the community, because by that means alone can you stop in time the process of decay in the mouths of the rising generation. In fine, by that means alone can you insure the physical and moral health of your descendants, and, therefore, the survival of the human race in a noble instead of in a degraded position in nature.

What is required seems to me to have been well summarised by Mr. Sidney Spokes, as follows:—

"1. That children should receive instruction as to the importance of sound teeth and the necessity of taking care of them.

"2. That in all poor-law schools dental treatment should be compulsory.

"3. That in Board schools it should be at first optional, and later on obligatory.

"4. That in public and private boarding schools there should be compulsory inspection on arrival, with reports to parents when necessary.

"5. That for all scholars the use of the tooth-brush at the least after the last meal of the day should be enforced."

The classification of schools in this enumeration is, of course, the English one, but, *mutatis mutandis*, the suggestions are applicable to our own education system. To these suggestions I will add one

other. In every hospital a thorough inspection of the teeth of inmates should be made, inasmuch as not infrequently dental lesions will be found to be at the bottom of their trouble.

Finally, I have no hesitation in saying that when the public has learned to pay proper attention to the teeth, one of the greatest sanitary reforms the world has ever witnessed will have been accomplished. Contagion and disease resulting from an insanitary and infectious condition of the mouth are a thousand times more subtle and dangerous than when arising from other causes, because infection of the mouth is to be found wherever humanity dwells. When amongst the other measures possessed by the community for the promotion of its welfare, one shall take its place for the compulsory dental supervision of children, I venture to predict that the public health will be much improved and the happiness of the people greatly increased.

Gentlemen, there remains but little for me to add. From what I have said, and after hearing the authorities I have quoted, I think you will agree with me that it is urgently necessary that immediate steps should be taken either by the State or by the Education Boards of the colony, acting under the instructions of the State, for the examination and treatment of school-children. I say, with a European writer on the subject: "Give me the children of this country, and I will annihilate the dental extracting-parlour, rob quackery of its victims, win the eternal gratitude of the dental faculty, and place the dental profession on the highest pinnacle of public favour." The only question is, how is it going to be done? We cannot go to the Government, saying to them: "See to it that the teeth of our school-children are examined quarterly, and treated whenever treatment is necessary, or we will turn you out of office." But at least this association can bring the force of argument to bear on the Ministry, and I believe when they understand the state of things which exists in our public schools, and the ruin which is being wrought through the absence of proper supervision and inspection, the Government will be willing to take the requisite steps to bring about a reform. It is not for us to suggest, I take it, whether the Government should hand this matter over to the Education Boards to attend to, or deal with it directly themselves by appointing their own dentists. Our duty ends when we have pointed out what is required, and have urged that the necessary steps should be taken.

I have now much pleasure in moving: That a deputation from this association wait on the Minister of Education with the object of urging him to assist us by providing means for the inspection of the teeth of the children of the State schools.

(This paper was printed by the New Zealand Government, and laid on the table of the House of Representatives, by leave; 1,250 copies were available, at a cost of 6d. each.)

QUEENSLAND.

THE ODONTOLOGICAL SOCIETY OF QUEENSLAND.

The ordinary meeting was held in the rooms of Mr. F. Hughes, George St., on Tuesday, September 29th. The President (Mr. D. R. Eden) occupied the chair.

Mr. J. F. Fox, of Ipswich, was elected a member. Another applicant was deferred until next meeting.

Applications were received from several country dentists.

A letter was received from the Dental Association in New South Wales, in reference to a proposed Commonwealth Dental Congress, to be held during 1906. It was generally agreed that such a meeting was desirable, and the reply to the letter was left in the hands of the committee.

It was decided to ask Mr. Pound (Government Bacteriologist) to give his promised lecture at the next general meeting.

Mr. F. Hughes then read a short paper on "The 'Buttner' Crown."

THE "BUTTNER" CROWN.

BY MR. F. HUGHES.

Mr. President and Gentlemen—My paper deals as much with the lasting qualities of Buttner's process as to the process itself. I may say that I have been pivoting teeth in this manner ever since 1880, and I know of some of the earlier cases still doing good service. And I dare say there are a good many more that are still in use; for as you know, if a man gets a comfortable pivot, which never troubles him in any way, he as likely as not forgets it is in his mouth, until some one brings the subject round.

Last year I had one of the very early cases in, and found that the root had grown down, so decided to get the Buttner off, if possible; and I can assure you it took me all my time to do it without loosening the root. However, I managed it at last by drilling through portion of the cap, and, inserting an excavator, I was enabled to loosen the cap from the root, and so get it off. Cutting the stump back to the level of the gum, I prepared it again and put on the old tooth, and it looked as well as ever. My patient said: "Will it last as long as last time?" I said I hoped so, and enquired how long he had worn it, and he said over 18 years.

Now, as to method. First cut your tooth to the level of the gum; then ream out nerve canal, with the proper instrument; then flatten root with the flattening instrument: next use trepine, and you are ready to take impression, which I do with composition. Place one of the brass caps, size of trepine you have used,

on the stump, and take impression in the ordinary way. Use a small tray, as you don't need a model of the posterior part of the mouth; place a brass root within the cap, and cast up your model.

You now have a model with the root in brass, which is a great improvement, as you can work without fear of breaking it away, a thing you would be almost sure to do, if it were in plaster. Only grind the selected tooth, and back the same, and having replaced brass cap with a gold one, fasten same with wax, invest solder, and finish. Should you like to finish in porcelain, you can obtain platinum caps, with the post going right through, and all you have to do is to bend the pins round the post, and finish up with high or low fusing porcelain facing body.

Mr. Henderson asked what advantage the "Buttner" had over the "Richmond" crown. Mr. Hughes said that there was an absolute fit of the band, corresponding to the trepine, and so much easier to make than the "Richmond" cap. There certainly might be a little more laceration of the gum in using the trepine, but the bleeding was soon stopped by the application of adrenaline.

Mr. H. F. S. Moran related a case in practice, in which he used a "Davis" pin in combination with the "Buttner" cap, and attached a "Davis" crown. He said that the trepines soon lost their sharpness, and he had a duplicate set, to allow of repair. He used the "Buttner" crown for the upper incisors only. He had found that ordinary burs, especially inverted cones, were quickly sharpened by reversing the bur in the engine, and holding it against a supported fine emery disc.

After further discussion, the meeting closed.

WESTERN AUSTRALIA.

THE DENTAL BOARD OF WESTERN AUSTRALIA.

The monthly meeting of the Dental Board was held in Furnival Chambers, 241 St. George's Terrace, Perth, on Friday, 3rd November, at 5.15 p.m. There were present Dr. Astles (President), Drs. Davy, F. M. Wilkinson, Messrs. A. J. Watts, and A. J. Wright.

The minutes of the previous meeting were read and confirmed.

An application for registration was received from James Alexander Campbell Wilson, D.D.S., of the University of Pennsylvania. The application was granted.

An application from Herbert Swanston Newton, of Sydney, was refused, as the applicant had not the qualifications required by the Act.

A communication was received from the Dental Board of Victoria, stating that the articles of apprenticeship with registered dentists in Western Australia of dental pupils who have passed the prescribed matriculation of the University of Melbourne (with Latin, English, Arithmetic and Physics as compulsory subjects), according to the regulations of the Board, will in future be recognised by the Board in fulfilment of that portion of the educational course relating to the service of articles of apprenticeship, enabling them to undergo the course and obtain the degree of Bachelor of Dental Surgery of Victoria.

Correspondence was received from Dental Board of Victoria, T. S. Merfield, Dr. Belgrave, D. M. Finimore, Deputy-Postmaster-General and the police.

The bank certificate and Board cash-book were laid on the table, and accounts were passed for payment.

PROPOSED COMMONWEALTH DENTAL CONGRESS.

The Registrar reported that at the instance of the Board, a meeting of dentists was held in Forrest Chambers, Perth, on October 20, to consider a letter received from the New South Wales Dental Association, proposing the holding of a dental congress. Resolutions were passed, appointing Drs. A. J. Bennett and F. M. Wilkinson, and Mr. G. C. D. Forster a committee to enter into communication with the New South Wales Association, with a view to holding the proposed congress in Sydney during 1906, at a date suitable to the Sydney Association. The membership fee was fixed at £1 1s. per annum.

FRANCIS M. SYME,
Registrar.

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All Communications intended for publication in the "Journal" should be addressed to the Editor at 177 Collins Street, Melbourne, not later than the 21st of each month.

All contributions must be written on one side of the paper only, and must be authenticated by the writer's name and address, not necessarily for publication, but as a guarantee of good faith.

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Literature will be forwarded upon request, containing a brief résumé of recent bacteriological investigations supporting the above argument and embodying:

"Experimental Researches."—A report by members of the Association of Analytical Chemists of the Pasteur Institute, Paris, concerning the antiseptic action of Listerine.

"Listerine Under the Microscope."—A tabulated exhibit of the action of Listerine upon inert laboratory compounds.

"Comparative Value of Certain Antiseptics."—An interesting showing of the comparative value and availability of various antiseptics in the treatment of diseases of the oral cavity.

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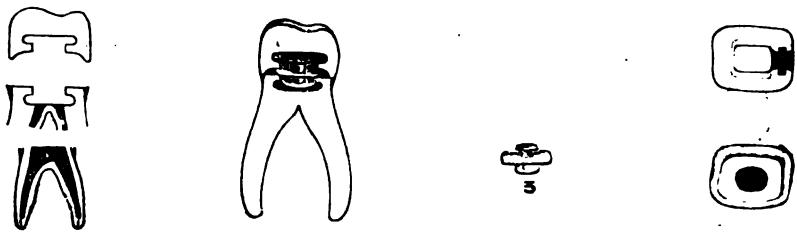
THE PARRIS' LOWER MOLAR CROWN.



The Crown was devised by Mr. Stanway Parris, to overcome the difficulties which present themselves in most lower molar roots owing to their unsuitability for taking a sufficiently strong post to attach a porcelain Crown. The Crown has in the centre a hole, this hole is under-cut all round, and the porcelain at the base is also slightly hollowed to take the bed-plate of the attachment.

The retaining plates are made in the dentist's laboratory, and it is advisable to keep several sizes on hand; a piece of No. 5 D.A. round wire forms the post—average height $\frac{1}{16}$ of an inch. The middle or bed-plate is a piece of No. 4, 22 ct. gold, slightly smaller than the shallows at the base of the Crown. The top and bottom plates are No. 7 D.A. plate, the size of the opening in the Crown and of the average pulp chamber when squared up. It facilitates soldering to have holes under all three plates to closely fit the No. 5 wire. The plates should be made of a squarish shape with rounded corners to counteract rotation; this is also done by fitting the Crown to the contiguous teeth.

The Crown of the tooth is cut off level with the gum, leaving the enamel margin untouched. In most cases, when level with the gum, the top of the pulp chamber is just exposed. The pulp chamber is cleared out and squared with a large cross-cut fissure bur in the right angle attachment. If there is any danger of cutting too deeply grind the top of the bur on a wheel and make it safe-ended. The roots can now be easily seen, cleaned and filled. The box-shaped chamber in the root is next undercut all round at the base with a large-sized wheel bur; these can be obtained safe-ended when necessary.

When decay extends below the gum, amalgam is used to restore the decayed portion, slight retaining being quite sufficient, and the undercutting of the box chamber only carried round on the three other sides.

Choose your Crown, and let it down on the root with squares of articulating paper cut to size, articulate it to the upper teeth, and then try one of the attachments in stock —this must fit without rocking, the rocking shows you have chosen one too high. A few touches with the file will enable you to bring the Crown into position on the root, a slightly easy fitting of the attachment inside should be aimed at. The Crown may be fixed with Ames' New Process Oxy-phosphate of Copper.

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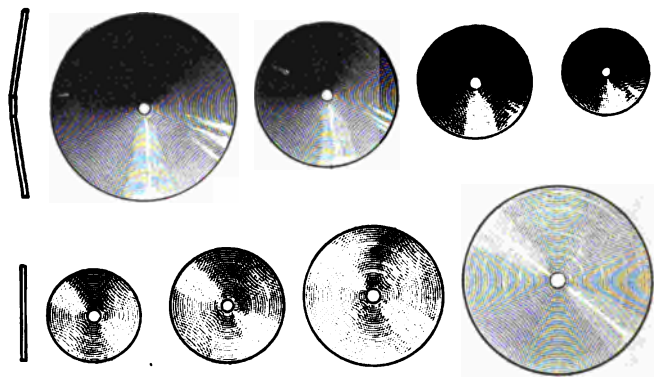

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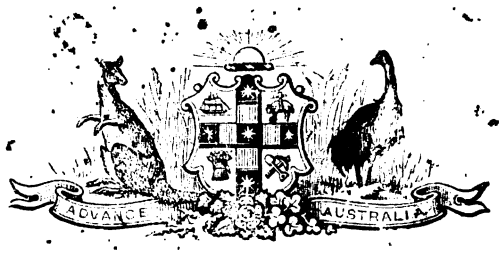

... The Australian ...

Journal ...

... of ...

Dentistry

EDITED BY JOHN ILIFFE.

A MONTHLY REVIEW OF DENTAL SCIENCE.

The Journal Representative of the Dental Profession, and Published solely in its interests throughout the Commonwealth of Australia.

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AND

The Melbourne Dental Hospital,

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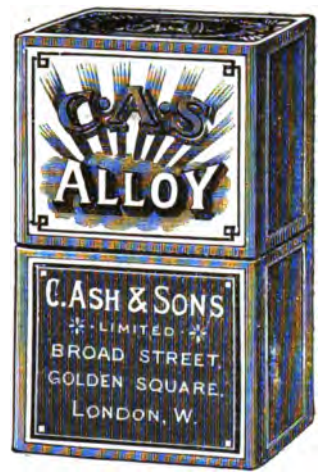

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THE AUSTRALIAN

JOURNAL OF DENTISTRY.

VOL. 9.] DECEMBER 30, 1905. [NO. 12.

EDITORIAL.

The annual dinner of the Dental Students' Society of Melbourne was a very pleasant and successful function this year. And while all present fully enjoyed themselves, it was noticeable there was an absence of the rowdy element in the hilarity indulged in, a feature of enjoyment which is usually considered the world over as inseparable from gatherings where students assemble in force. Perhaps the restraining influence lay in the presence of the Lieutenant-Governor, Sir John Madden (who is also the Chief Justice, as well as Chancellor of the University)—who can say? The success was due to good management. The committee deserve great credit in their choice of representative speakers, whose remarks were characterised by a high tone and sentiment.

Not only was the dinner a success from the students' point of view, but these annual recurrences seem to assume a character in dental matters in this State similar to those more imposing civic functions, which usually take place in November throughout the Empire, when the Prime Minister or a responsible member of the Government, while not giving an account of their stewardship, nevertheless is expected to shadow forth the Government programme, whether it be the Imperial policy of the Empire or the smaller politics of the dependent State.

Sir John Madden, who was received with great cordiality, gave the students some good advice, in his recognised happy and characteristic manner.

The remarks made by the President of the Dental Board with regard to the privileges and recognition attached to the position of the holder of the degree of Bachelor of Dental Surgery of the University of Melbourne and the Licentiate of Dental Surgery of Victoria are noteworthy and significant. The reciprocity there alluded to seems to be the only true form of reciprocity which should obtain, i.e., that which recognises a high standard of professional education and practical efficiency such as is acknowledged by the General Medical Council of Great Britain as the passport of freedom throughout the Empire. The aspirations towards reciprocity recently expressed in a neighbouring State, which are said "to go a long way towards solving something in this matter —all these little (State) Acts wiped out of existence, and a fat Commonwealth Act passed, which would do the whole business and allow dentists to travel about a little bit"—would, if we take into consideration the present state of the Federal Legislature, and if such aspirations were made the law in the Commonwealth, prove a very sad as well as a very bad day's work for the dental profession. They are suggestive of indiscriminate reciprocity, and would, we venture to say, be a levelling down instead of raising the status of the profession, and create a form of dental State Socialism very undesirable for the community. In the State of Victoria it would to a great extent mean the undoing of all the work and strenuous endeavour which has been made during the past sixteen or seventeen years, just at the time when the greatest authority in the Empire, medically and dentally, has recognised the high professional standard which has been the object of our hope and constant progressive aim.

It cannot for a moment be imagined that the profession in Victoria desires that any State of the Commonwealth should be the dumping ground of the incompetent, half-educated "professors of teeth," who assume or buy fictitious titles and annex letters which colourably and falsely imitate the hard-earned and genuine professional degree or diploma. It is these men who would lower the profession to a mere trade, and having no reputation to lose, who successfully deceive the ever-trusting public. The more democratic the people are the more they love and are impressed by a

title, which may be a bogus one. Generally speaking, it is not men who possess the highest attainments who want to "travel about a little bit:" the successful practitioner is mostly content to follow up his success, and stay among the people who helped to make him successful.

A Commonwealth Act of Parliament, embodying a reciprocity clause as above mentioned, may be unique in dental legislation, but it certainly would be an imminent peril to the best traditions of the dental profession, as it would lower the standard of ethics in professional amenities, as well as the social status of the dentist himself, and the high standard of professional and effective practical education. Besides which, it would be breaking faith with those students who have begun their professional education under the protection of the law as it is enforced at present in this State.

These aspects of the whole question have occupied more attention and thought than any other among the leaders of all the movements for advancement in the dental profession during more than sixty years of its history. It is at once our heritage and bounden duty to maintain both the status of the profession and the high standard of education by every means within our power, and by so doing follow in the footsteps of the illustrious pioneers and fathers who had faith in the future of our profession, and in all that makes for the uplifting and benefit of mankind.

The Hon. Secretary of the Society is to be commended for the outspoken and manly way in expressing his opinion of the great obligation all the students owed to the Hospital and College. When such sentiments are reciprocal and the obligation is duly honoured it augurs very favourably for the future of the College and Hospital. For it is to the young practitioners and graduates we must look for the carrying on of the work which has proved so successful up to the present. The older men who now hold office cannot, in the ordinary course of nature, be expected to continue their valuable services for an indefinite period of time.

We cannot conclude this the last number of the year without, at this festive season, once more making a strong appeal to all the profession in Victoria to signalise the advent of a New Year by sending contributions to the building fund of the new Dental Hospital, plans and designs of which have already been advertised for. We have great pleasure in wishing all our friends and subscribers

A Happy New Year!

VICTORIA.

THE DENTAL BOARD OF VICTORIA.

Presentation of Diplomas.

The annual ceremony of presenting the diplomas of Licentiate of Dental Surgery of Victoria, conferred by the Dental Board, took place in the Independent Church Hall, Collins Street, Melbourne, on Wednesday afternoon, 6th December. There was a fairly large attendance, including many friends of the students.

The President of the Board, Dr. J. W. Springthorpe, occupied the chair, and on the platform were Mr. John Iliffe and Mr. A. R. Clarke, members of the Board, Mr. F. A. Kernot, Vice-President of the Australian College of Dentistry, Dr. J. E. Nihill, Mr. A. W. Craig, M.A., lecturers at the college and Mr. Ernest Joske, LL.B., Registrar.

The President, in opening the proceedings, said he had the pleasing duty that afternoon of presenting the diplomas to the successful students who had just completed their four years' course of study. (Applause.) It was a course of which they might well be proud, as it meant four years' hard work, and the passing of very stiff examinations. The course was received with respect the world over. (Cheers.) At the same time, he expressed sympathy with those who had not been successful. Before doing so he called upon Mr. Iliffe to make a few remarks on the progress of dental education. (Applause.)

Mr. Iliffe: Mr. President, Ladies and Gentlemen,—Although the gathering this afternoon is a Board function, pure and simple, it was thought desirable that a brief resumé should be given of the progress made in the development of dental education since the Amending Dentists' Act of 1898 gave the Board plenary powers to formulate and enforce a complete curriculum for its diploma of Licentiate of Dental Surgery, and also to mark the close of the first session of the course for the degree of Bachelor of Dental Surgery of the Melbourne University, since

the affiliation of the three educational bodies interested therein, viz.—the Dental Board, the University, and, last but not least so far as we are concerned, the Melbourne Dental Hospital and the Australian College of Dentistry.

Beginning with the year 1889, the time when students could first take up their course for the L.D.S., I find that eight students were entered on the roll. The work of the Hospital was being carried on by those students who had entered the course for the College diploma under the old regulations—up to that time the only means the Council of the College could arrange to safeguard the public from incompetent and half-educated persons. (Applause.)

The following record is taken from the annual reports of the Dental Hospital and College:—

YEAR ENDING 30TH JUNE, 1899.

No. of patients attending	7,476
No. of operations	10,922
Including fillings of all kinds	1,963

No. of S.D. students entered on roll, 8; 21 under old regulations, some of whom were afterwards transferred to the L.D.S. roll. (9 apprentices to the College.)

YEAR ENDING 30TH JUNE, 1900.

No. of patients attending	4,127
No. of operations	9,358
Including fillings, treatment of irregularities, etc.	2,584
Extractions	6,774

No. of students on the roll:—10 first year, 13 second year. (12 apprentices to the College.)

YEAR ENDING 30TH JUNE, 1901.

No of patients attending	5,323
No. of operations	10,516
Fillings, treatment of irregularities, etc. ...	4,485
Extractions, temporary and permanent ..	6,031

No. of students on the roll:—14 first year, 10 second year, 12 third year.

YEAR ENDING 30TH JUNE, 1902.

No of patients attending	4,324
No. of operations	10,714
Including gold fillings, 243; other fillings, 1,098; dressing and minor operations, 795; gas cases, 306; chloroform, 92; extractions, permanent, 5,308; do. temporary, 2,897.	

309 patients were fitted with 3,595 artificial teeth.

No. of students on the roll;—20 first year, 8 second year, 9 third year) 14 fourth year—all of these last named received the first diplomas granted by the Board on 5th December of that year.

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[illegible]	447	Temporary extractions ..	2,077
[illegible]	1,479	Permanent extractions ..	9,535
[illegible]	519	Gas and somnoform cases ..	1,582
[illegible]		Local anæsthetic injections..	283
[illegible]	2,030	Nasal inhaler cases ..	18
[illegible]	45		
[illegible]	4	Total operations ..	18,488
[illegible]	24		

Number of new patients, 4,105

Number of visits to the Hospital 8,276.

600 patients were fitted with 4902 artificial teeth.

No. of students on the roll:—28 first year, 20 second year, 17 third year, and 12 fourth year; 7 of whom receive the diploma to-day; the others have another opportunity at the supplementary examination in February. There are 22 students indentured to the College.

A progress, Mr. President, Ladies and Gentlemen, of which we need not be at all ashamed; but it is a record with which all concerned in the management may feel well satisfied. (Applause.) Another phase is worth mentioning, and that is that the practice at the Dental Hospital has further developed the usefulness of a com-

paratively new anæsthetic in a very satisfactory manner. I refer to somnoform, which is slowly but surely pushing aside chloroform and nitrous oxide as an anæsthetic in dental operations. Advantage has been taken by a number of our medical friends, who have visited the Hospital, and witnessed the mode of administration and the satisfactory anæsthetic results which have been obtained. (Applause.) Ladies and Gentlemen, all this work has been got through in a building not designed for a Dental Hospital. Truly, the building afforded the best accommodation the Council could find in 1897, when the College was first established, but our necessities and requirements have outgrown its capacity. I mentioned last year the Council were undecided in their endeavour to secure a convenient site, suitable for our requirements. I am now able to say, as probably many of you have heard, they have purchased a block of land in a very central and accessible position, at the corner of Spring Street and Little Bourke Street. We felt very grateful to the Government for their offer of a site on the St. Kilda Road. We, however, think a better position has been secured in every way. The next stage is to put up the building, and I am pleased to say that last evening the Building Committee accepted the plan and sketch design, which I had the pleasure of preparing as a guide for the architects. Very shortly competitive designs will be advertised for, so that no time will be wasted in commencing to build. This brings me to the inevitable ways and means, and I would like to gain the interest of you all in this matter. I am a believer in the multiplication of small subscriptons. I don't ask the students for contributions, but I sincerely hope they will not forget their old College and Hospital, and to show they do not forget by collecting subscriptions to the Building Fund from among their friends, as well as from the public. Other charities have started with substantial Government aid, but unfortunately in all our efforts either on the charitable side or on the side of developing dental education for the public benefit, we have never been able to secure any like assistance. Hence I have the temerity to make this appeal to you to-day. (Cheers.)

Mr. F. A. Kernot, at the request of the President, made a few remarks on the condition of the present Hospital. During the past year the Council had given a large amount of consideration

to the question of a suitable site for the new Hospital, and, after many lengthy discussions, considered it advisable to decline the generous offer of the Government, which placed a valuable piece of land on St. Kilda Road at their disposal. Having abandoned the St. Kilda Road site, the Council necessarily had to look about for a more central position, and, after examining many of the lots submitted to them, decided to purchase a block of land situated at the corner of Spring St. and Little Bourke St., opposite the Federal Parliament Houses. On this eminently-suitable position it is proposed to erect an up-to-date Hospital, replete with all conveniences. And the Council hope before very long to welcome the students there, and trust they will be able, with the more modern building and additional appliances, to do even better work, both for themselves and their patients, than they nave done in the past.

The Registrar, Mr. E. JOSKE, then read the names of the students who had successfully passed the recent examinations of the L.D.S. course, November, 1905:—

FIRST YEAR.—F. A. V. Allen, A. E. B. Baines, L. DeBeer, O. Blaubaum, F. M. Bradshaw, A. L. Lukins, A. G. J. Naylor, C. M. Murrell, J. Polack, R. E. Vernon.

SECOND YEAR.—A. L. Beischer, S. B. Croad, E. S. Fisher, R. Frazer, J. E. Gosney, F. L. Kelly, A Lambert, P. Mattingly, E. R. Owen, G. A. Payne.

THIRD YEAR.—C. E. Allen, G. Braham, R. Braham, N. R. S. Carter, M. M. Crombie, J. E. Down, M. M. Eggleston, M. I. Rae, P. E. Sainsburg, B. J. Thompson, P. N. Wade.

FOURTH YEAR.—D. McL. Austin, H. W. Bennett, S. F. C. Bindley, E. A. Davy, F. M. Kiel, R. McCann, K. Russell.

The winners of the various prizes at the Australian College of Dentistry were also announced.

The President (Dr. Springthorpe), then presented the diplomas, together with a few words of congratulation, to the following students:—

W. McL. Austin,	E. A. Davy,
H. W. Bennett,	F. N. Kiel,
S. F. C. Bindley,	R. McCann,

K. Russell.

Dr. J. E. NIHILL proposed a hearty vote of thanks to the President. He said no one outside those who were closely associated with him knew the valuable services he had rendered to the progress of dental education. He had great pleasure in proposing

this vote of thanks, for he felt sure they all would appreciate the work Dr. Springthorpe had done, and hope that he might long continue in his present office, and in further developing the work.

Mr. A. W. CRAIG, M.A., warmly seconded the vote of thanks. It was supported by Mr. A. R. CLARKE, and carried with acclamation.

Dr. SPRINGTHORPE, in responding, said it was a very arduous task sometimes to work for a desired end, and apparently fail, and get no thanks; but it was doubly satisfactory to find one's work in some measure complete, and at the same time receive some commendation. He thanked them for their goodwill.

ANOTHER PROSECUTION FOR INFRINGEMENT OF THE DENTISTS' ACT.

At the Court of Petty Sessions, South Melbourne, on Wednesday, 13th December, 1905, before Messrs. F. G. Hartley and D. McArthur, J.'sP., Albert Lancelot Miller was charged on summons, at the instance of the Dental Board of Victoria, with infringing the Dentists Act, by exhibiting a sign, "Town Hall Dental Institute," at his place of business, Bank Street, South Melbourne, he not being a duly qualified and registered dentist under the Act.

Mr. H. S. Cole (instructed by Mr. E. Joske, LL.B.), in opening the proceedings, said that the defendant had, at the Registrar-General's office, registered the names of William Henry Frost and Albert L. Miller as a firm, carrying on business as the "Town Hall Dental Institute." Frost was a registered chemist and dentist, but Miller was only a mechanic, and it was illegal for him to be a partner in such a business. The fact of the matter was that Miller was carrying on the business, and using Frost's name. The Act was specially directed against such practices.

Evidence was given by Mr. Lundy, clerk in the Registrar-General's Office, and Mr. Ernest Joske, Registrar of the Dental Board, which showed that Miller had registered the firm, and that Frost's name only was on the list of registered dentists.

For the defence, it was contended that the business belonged to Frost, and that Miller was employed by him.

The Bench fined Miller 40/-, with £3/3/- costs, and granted a stay of proceedings for 14 days, to allow of the decision being reviewed.

ODONTOLOGICAL SOCIETY OF VICTORIA.

The annual meeting of this Society was held at the Vienna Café on Tuesday, Nov. 28th, 1905, at 8 p.m.

The President, Mr. T. F. W. Hall, M.A.C.D., occupied the chair, and there was a good attendance of members and visitors.

The minutes of the previous annual meeting having been read and confirmed, the Hon. Secretary then read the annual report: —

Annual Report.

Again I have the honour of presenting the Annual Report of this Society, and again I have to tell the old, old story, complaining of errors of omission and commission, yet giving thanks for the measure of success which has always attended our Society.

The syllabus for the year compares favourably with those of previous years, and the attendance of members for the year just concluding is well up to the average.

At all of our meetings, members were ever ready to indulge in healthy argumentative discussion, and a general feeling of goodwill has been as an incense to make our gatherings pleasant, and to cement the brotherhood of those so anxious to see dentistry raised to a standard beyond that which our present legislation permits.

With reference to the good work done by the Dental Board towards dental legislation, members of this Society have already individually helped in the matter, and now collectively thank the governing body for its zealous endeavours, which might, under more favourable circumstances, have already brought labour its reward.

We, however, have every hope that the general desire of all reputable dentists will be accomplished in our eventually gaining the legislation sought.

Dr. Burne, who represented us at the Fourth International Congress, held at St. Louis, U.S.A., honoured the Society by accepting a special invitation to attend our September meeting, and giving a resumé of the work done at the Congress. He also delighted members by introducing to their notice many excellent specimens which might be termed "Dental Novelties," and other specimens of interest, and indicative of the Doctor's skill and

enthusiasm in his work. The meeting resolved itself into a social evening, and a most pleasant evening was spent.

At its conclusion Dr. Burne was presented by the Society with a sovereign purse, and was made a life hon. member of the Odontological Society of Victoria.

In conclusion, we thank all who so capably provided us with papers during the session, and our special thanks are given to the ever-courteous Editor of the *Australian Journal of Dentistry*, for so faithfully recording our transactions.

On the motion of Mr. Cooper, seconded by Dr. Prytz, the report was adopted.

The Hon. Treasurer presented the balance-sheet, duly audited, which showed the Society to be on a sound financial basis.

Mr. Iliffe moved that the balance-sheet be received and adopted. In seconding the motion, Mr. Hall paid a panegyric to the untiring efforts of the Hon. Treasurer, Mr. Iliffe, and the motion was carried unanimously and enthusiastically.

Election of Officers.

The election of officers for the ensuing year then took place, and resulted as follows:—President, Mr. R. A. Cooper; Vice-President, Mr. A. L. Elvins; Hon. Treas., Mr. John Iliffe; Hon. Sec., Mr. W. J. Tuckfield; Librarian, Mr. E. Freeman Greenwood; Auditors: Mr. A. H. Bell and Dr. Prytz.

Mr. Hall, the retiring President, thanked members for their attendance that evening, and at the other meetings of the year. His duties as President had indeed been light, and had been quite a pleasure. All members had worked amicably together, with the high ideal of furthering their profession. He took the opportunity of welcoming back among them Mr. A. R. Clarke, a gentleman who had done very much for the good of dentistry, and who, unfortunately, had been compelled through ill-health to absent himself from the Society's meetings. In vacating the chair, he wished the Society every success, and felt sure that, under the able presidency of Mr. R. A. Cooper, such success was assured. He had much pleasure in welcoming Mr. Cooper to the chair, and trusted that his regime of office would bear with it the same pleasure which Mr. Hall himself had enjoyed as President of the Society.

Mr. R. A. Cooper, having taken the chair, thanked members for the honour conferred on him. He had been Vice-President of the Society, and now had been rewarded amply for his personal interest in the Society, by his elevation to the chair. He would do his best to further the interests of the Society.

Mr. A. R. Clarke feelingly responded to the kind words spoken by Mr. Hall, and said that he would always appreciate the kindly sentiments, so generally endorsed by members present, and hoped to have the privilege and pleasure of attending the meetings of the Society as often as possible.

The other officers elected returned their thanks, and the business of the meeting being then completed, the President and members entertained their friends at a

Social Evening.

Numerous songs and instrumental solos comprised the musical programme of the evening, and the toasts of "The King," and "The Odontological Society of Victoria" were honoured.

Mr. Craig, M.A., F.C.S., in proposing the toast of "The Odontological Society," thanked the President and members for their kind invitation to him to be present. He quite looked forward to their annual gathering, and, although on this occasion it clashed with a meeting at which his attendance was imperative, he was only too anxious to break away, and join with the members of the Odontological Society at their meeting. He fully recognised the great good the Society was doing, and, as a comparative outsider, thought that he might be allowed to compliment the Society on its work. It had indeed done much to elevate the standard of dentistry, and help forward the cause of dental education, and had also accomplished much in cementing the profession with that of medicine. The medical man and the dentist now stood side by side as men of science in their particular professions. As usual, the Society had again provided an excellent programme, which he thoroughly enjoyed, and he knew he voiced the opinion of all visitors present. He had very much pleasure in proposing the toast of "The Odontological Society of Victoria."

Mr. Iliffe said that, having been requested on behalf of the Society to respond to so important a toast, he thanked them for the honour conferred, but, if Mr. Craig felt diffident in propos-

ing the toast, as he had not expected he would be called upon to speak, he himself felt very much in the same position. He thanked Mr. Craig very cordially for his kindly remarks about the Society and its usefulness, and also thanked the visitors for the hearty way they had pledged the toast. Although several apologies had been received, he knew that some friends were prevented from attending, as they were engaged in the annual examinations held by the Dental Board which were not yet finished.

It was quite true what Mr. Craig said with regard to much that had transpired in the development of dental education in Victoria, that most of the initiatory work emanated from the Society, and many of the members continued to take an active part in the work.

He was reminded of an episode which took place when the Society made a third attempt to establish a Dental Hospital in Melbourne, about a month or two after the Dental Board formulated its first curriculum of dental education, approved by the Governor in Council, and gazetted in May, 1889. The committee came to the meeting fully prepared with a scheme to establish a Dental Hospital, when they were outvoted by the largest attendance of members at any meeting of the year. The members at that time thought such a scheme too large an undertaking for so small a Society. Such an object as providing a teaching centre for students should have the support of the dentists generally. After the meeting, many of the members again discussed the matter, and finally arranged for a general meeting of dentists, to establish the Hospital. Many of you remember two meetings were held, and a Dental Association was formed, its principal plank being the Hospital. That Association, however, did not establish the Hospital, but died a natural death through apathy, the greater number on the dentists' register taking no interest whatever. Eventually the Hospital was founded, as almost all of our charitable institutions have been, by a public meeting in the Town Hall on July 4th, 1890. There was no need to remind them of the success of that institution, nor of the Australian College of Dentistry affiliated with it. They all knew that the Council of the College had purchased a very suitable site upon

[illegible]

[illegible] affiliation of the College and Hospital with the University of Melbourne and the recognition of the Victorian L.D.S. and the B.D.S. of the University by the General Medical Council of Great Britain, the Royal College of Surgeons of England had also recognised these degrees so that our graduates holding these Victorian qualifications, by taking up a few months' extra study in general medicine and surgery in London, would be eligible for the L.D.S. diploma of that conservative College.

He reminded members they could materially help the newly appointed Secretary by assisting him in preparing a syllabus for the session of 1906. This was a pressing need of the Society; he spoke of it at the end of the session so that the members could think over the matter during the recess, and then forward the subject they would treat of to the Secretary, when a complete syllabus could be issued. If that were done, members would know beforehand what the subjects

would be, and would come to the meetings well prepared. The discussions then would be more beneficial and practical in character, such as would encourage the essayist, and lead to a more general interest being taken in the Society.

There was "The Care of the Teeth of the Children," a subject which had already engaged some attention in the Society. It was an important question, and required more ventilation. He drew attention to a paper on the subject by Mr. F. W. Thompson, of Christchurch, which would be published in a day or two in the "Journal." He hoped to see members come prepared with suggestions, and to take some action in the systematic examination of children's teeth as a very valuable aid to the physical and moral health of the rising generation.

There were many other suggestions he could make; but perhaps he had suggested enough. In conclusion, he, on behalf of the Society, very heartily thanked Mr. Craig for the kindly and very cordial manner he had proposed the toast of the Odontological Society.

The toast was honoured with much enthusiasm.

The artists for the evening were Messrs. Horace Stevens, Howard Elvins, Brooke, Levy and Fletcher. A very pleasant evening was concluded with the singing of "Auld Lang Syne."

ALEC. L. ELVINS.

Hon. Secretary.

MELBOURNE DENTAL STUDENTS' SOCIETY.

ANNUAL DINNER.

This function took place at the Vienna Café on Thursday evening, 7th December, and turned out to be an unqualified success. The weather was just the thing, neither too warm nor too cold; the guests were in the best of spirits; the dining-room was most tastefully decorated with flowers; and the excellent menu provided was done full justice to by everybody.

There were some eighty-eight good spirits seated at the tables. The President of the Society, Dr. Orr Gray, presided, being supported on either hand by Sir John Madden, President of the Coun-

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[illegible] During the past twelve [illegible] I refer to the affiliation of the College with the Melbourne University and [illegible] I certainly [illegible] of the Melbourne University is to be [illegible] the affiliation of such a body of [illegible] When the affiliation was first [illegible] were eagerly [illegible] who at first did not regard it as a step [illegible] In fact, in the first ten or fourteen [illegible] we heard more argument as to the pros and [illegible] of the matter than any other single subject had received during the past three or four years. It became apparent that the students were divided as to what the results would be. Eventually, Dr. Springthorpe very kindly undertook to set our apprehensions at rest. He attended one of our meetings, and in his address fully set forth what the position of the graduates of the Australian College of Dentistry would be in the future,

more especially as regards their status in the rest of the empire, and so put a stop to the arguments which would, in all probability, otherwise have been still in progress. With regard to the curriculum, we are quite satisfied that it is second to none, and better than most. By its means, any student who graduates from our College will be fitted to earn his daily bread in a manner creditable to his College and himself, wherever he may be. In the October issue of the "Journal," it was notified that the Council had purchased a site on which to erect a new Dental Hospital. Now, this is another noteworthy event which has happened during the session. The students are well satisfied with the choice of the Council, and I think it is just as well to let them know it. We are now anxious to see the building in course of erection, and still more eager to have it completed. At the same time, we must not overlook the present building, which has hitherto served us so well, although it was not built for a Dental Hospital. It has served as a very good stand-by, and has been admirably managed by the Council. We will never forget the days spent within its walls, nor the many acquaintances and friendships which we have formed there. (Applause.) I have this evening, on behalf of the Dental Students' Society, to welcome the President of the Council, Sir John Madden. This is the first time we have been honoured by his presence, and I hope it will not by any means be the last. I have also on behalf of the Society to welcome to the ranks of the Council three new members, Professor Osborne, Dr. Mollison, and Mr. Wilkinson, the last of whom is a graduate of the College. It is indeed gratifying and pleasing to find that men who were once students in the institution are now taking an active part in its management. I have one important point to mention, though it gives me some pain to have to do so. It is that the Council does not receive the support from graduates which they really deserve. I find that out of seventy-five graduates, three only are subscribers. Now, I am only a student, but I promise that I shall endeavour to make all those who come through with me—if I ever do obtain my L.D.S.—to become subscribers. (Cheers.) We have a noble institution, which does deserve the hearty support of all its graduates. Those men have a lot to be thankful for, and I think the least they can do for the College which has

done so much for them is to subscribe the small amount of one guinea annually. They surely will not feel it, while they will be benefitting the College in no small degree.

The toast was received with cheers, and drunk with musical honours.

Song (Comic)—"The Bassoon"—given by Mr. Norman Brooke, convulsed the audience. He sang as an encore, "Silence Reigned Supreme."

Sir JOHN MADDEN, in response, said: Mr. President, Dr. Springthorpe, and Gentlemen,—I am exceedingly proud to hold the position of President of your Council, but I wish I could be able to say within myself that I deserve it. I have endeavoured to ornament it with the very limited powers with which nature has endowed me; but I fear this is the beginning and end of my duties on the Council. Nevertheless, the Council deserves your thanks well. It is not a modest observation to make, but I think it may be safely said. If there be one argument by which I can sustain the contention, it is that there is around this festive board a distinguished and imposing body of persons, and the Council is in a great measure responsible for that fact. Only eight short years ago, there was no such institution as the Australian College of Dentistry. It was established at that time, and it is a matter to be indeed proud of, that within that brief period such a body of students has sprung into existence. In addition, the Council has also been intsrumental, as your Secretary has already observed, in bringing the Dental College into affiliation with the Melbourne University. That fact in itself is very important. Your Secretary has said, with becoming loyalty to this Society, and to the Australian College of Dentistry, that it is a matter of which the University has reason to be proud. The University is proud of it, because it feels that first of all, as a mere matter of expediency, it would be a very sad thing that the Dental College should be outside the body which is most responsible for the scientific and technical training, and education of Victoria. So that it is a matter of congratulation to the University that the Dental College is now affiliated with it. On the other hand, it is a matter to be proud of on your own part: for when you come to reflect, it is not so long since the dentist was regarded as a sort of artisan,

a little superior, say, to a carpenter or a mechanic. To-day, however, he stands amongst the scientists of the nation—a person high in the education of the country, and one who is certainly entitled to rank in a University, and to share its degrees. In the next place, your Council is entitled to thanks, because in the same short period of time it has been able to obtain in England a recognition of this College which is secured to no other, for the reason that your curriculum is on almost the same lines as is the English. All this and other matters have been achieved within eight years. What will not be done in the next eight years? I will leave you to imagine. I will now turn to another side of the picture. For my part, in declining years, I am beginning to fear something from those magnificent voices which I have heard to-night—not unmusical, when you get used to them—but I apprehend they will be a terrible engine on Commencement Day. With all your intelligence and brilliancy, that is one side of the question of which you ought to beware. We will pass it by, however, and hope that the "music" will improve and the noise be something less. I feel that I am warranted in complimenting you, and in pointing out what a valuable position you hold in society. When, in the future, after you get through those little "preliminaries," which can be got over as easily as falling off a log, and you come to handle the forceps and other like delicacies, you will have a great opportunity of being patriots in Australia. You will tend, more than anything of which I know, to supply a smiling people in a smiling land. People who have never smiled before will perpetually do so after leaving your hands. Now that we are passing away from the comparative ease and comforts of anæsthetics, and employ such agents as adrenalin, it will be one of the fashionable recreations of an afternoon to call in and get a tooth drawn. I would not for a moment dream of comparing you dental students to Mephistopheles; but you have it in your power to do in a pronounced way that which he did for Faust. You will be able to create feminine beauty—nay, prolong it. I would say in conclusion that you have the endowment of youth; the world is before you; and, as science advances, the opportunities for the man who has a few years to boast will be immense. Those who have the chance of being trained in this College and at the University

will certainly, in the time to come, be able to eclipse all those who now, perhaps, you may consider as great and important people. I thank you very heartily indeed on behalf of the Council.

Mr. William Ross gave a very pleasing rendering of "A May Morning."

Mr. R. G. Braham, in proposing the toast of "The Dental Board," said: I have great pleasure in proposing one, I think, of the most important toasts of the evening, namely, that of the Dental Board, coupled with the name of its well-esteemed and worthy President, Dr. Springthorpe. We all know what great strides the dental profession has made during recent years. It, as it were, started originally like a seed: that seed has germinated, and now in its place we have a healthy, well-grown, and flourishing plant. The progress of dentistry in Victoria is, I consider, due to the untiring efforts of those gentlemen who comprise our Dental Board. We cannot bestow too great praise on them, when we recollect the obstacles they have overcome, and the uphill fight which they have made, until at last by dint of great determination and patience they have emerged triumphant from the conflict. As a striking example of the progress of dentistry in Victoria, we have only to look at our own College, which at its inception had only seven or eight students, whereas now there are between 70 and 80 on its roll. The Dental Board is responsible for that, and I think that body may be safely left to continue the good work it has done hitherto. Every student places the utmost confidence in the Board, for he feels that at their hands he will receive those two great things which are so dear to the heart of every Briton—justice and fair play. (Applause.)

Mr. Horace E. Stevens received a perfect furore for his excellent singing of "The Bandit's Life." He was equally pleasing in an encore, "The Wedding of Shon McLean."

Dr. Springthorpe, who was received with cheers, replied: Mr. Chairman, Sir John, and Gentlemen,—On behalf of the Board I return you sincere thanks for the way in which the toast has been proposed, and enthusiastically responded to. It would be very unfair, however, were the Board to take to itself any idea that it was particularly responsible for the present very satisfactory position of dentistry in Victoria. Had it not been for the fact

that in former years there existed an association of dentists—I refer to the Odontological Society of Victoria—which worked well for many years, and has been instrumental in maintaining all the best traditions of the profession, the Dental Board would never have been able to put into operation its curriculum, nor would the Australian College of Dentistry have been able to carry it through. If the Council of the College had not possessed such a staff of self-sacrificing and hard-working members, and at the same time such a Registrar as Mr. Joske, you students might have attained a very good position, but I do not think you would have been anywhere like you are to-day. The principal business of the Board was to frame the curriculum, but it had to rely upon the Council to see it carried out. In framing that curriculum, the Board had to take into account two things—what to put in, and what to leave out. I might, in passing, say that those who did not get through the recent examinations left out too much. But, as I was saying, in the curriculum, while we knew well enough what to put in, it was much more difficult to decide as to what should be left out. Now, I believe that one of our old graduates here to-night has come all the way from another State to be present. That gentleman, when a student, had not the science of bacteriology included amongst the subjects of his course; but, wishing to become acquainted with it, he went home to the old country, or to Germany, to master its details. You students have now the opportunity to study bacteriology at the Melbourne University, and you can learn it quite as well there as anywhere else. Now, when the Board started its curriculum, we found that all the curricula in England agreed in this particular, that in non-dental subjects they medicalised the dental students, who had to learn the same amount of anatomy, physiology, pathology and surgery as did the medical students themselves. But we were not hide-bound, and looked at the matter in a dispassionate way. We considered that if the dental students learned enough of these subjects, there was no reason why they should be medicalised altogether. The thing of which the Board is most proud is that we have been able to keep you from having to do all that the medical student has to do in those particulars. When the time came that any further recognition of our qualification should be called for, I ventured to say,

as the President of the Board, that I thought it very likely that we might have to alter our position in the face of strong opposition from the old country. I am very glad to say that thanks to the good work done by the College of Dentistry, and the way that we showed them that the students here were trained, the General Medical Council agreed to our definition of what a dental student need know in these particulars; so that you were saved what all the dental students in England have to do. It is a very great gratification to us to find that our students have been accepted on our own terms. Had they insisted on their terms, we would very probably have had to give way. I believe that the future dental student of the British Empire will be trained on the lines of our College and its curriculum, being relieved of the extra amount of non-dental work, and free to devote his attention to all true dental matters. I think we may fairly claim to have attained the happy medium between the American and the English systems. The American system ignores rather the extra-dental work, and does not call for a proper preliminary education. We now have the matriculation examination. You can face any part of the world with that. In the second place, we have modified the English system of medicalising the students. I do not want to claim too much for our curriculum, but it is, from a dental point of view, very satisfactory. Now, I would point out the happy position you will occupy in the future owing to this recognition by the General Medical Council, which has largely been brought about by the affiliation of the College with the University. The fact is, that our dental students now have the whole of the British Empire open to them, for their practice. That is a very large thing for a small community to be able to say: at the present time, indeed, we are the only community outside Great Britain who can say that. A very important point is that, included in the Empire, you have the whole Commonwealth open to you. This has been achieved without that awkward reciprocity which would have been necessitated but for our recognition by the General Medical Council. That is to say, suppose we refuse to recognise a dentist registered in any one of the other States, that State might say in respect of a Victorian dentist who applied for registration there: "We are very sorry, but we won't

admit you." Imagine what would result if we were compelled to admit as dentists men who have not undergone a satisfactory preliminary education, and had no proper curriculum. But as I have said, we will not have to consider the matter on those terms at all. You will be able to practise in the other States, by virtue of the recognition by the General Medical Council, and absolutely apart from any question of inter-State reciprocity. Again, we know that politicians are politicians, and possibly some Commonwealth Act might have compelled us to recognise registrations by other States, where the curriculum is very limited, or where there is none. Another point I wish to set forth, without saying one word against those students and dentists who are trained in the great country of the United States. Practically, for some years to come, there will be no more American dentists admitted into this State. The reason is twofold. In the first place nearly all their colleges virtually ignore the preliminary examination; and secondly, they have reverted, probably for financial reasons, to a three years' curriculum. On these two grounds, the Dental Board cannot admit any of them to be registered in Victoria. Therefore, you have not only the Commonwealth as well as the rest of the Empire open to you for practice, but here in Victoria you are protected against the invasion of those who have not come up to your standard. I have to congratulate the College on the early anticipation of going into their new Hospital. There is no question that you ought to regard your present building with feelings of veneration and respect. I believe visitors from other States view with feelings of consternation the actual amount of work done here, as compared with the meagre quantity done amongst themselves. We have always maintained that the present building was unsuited for a Dental Hospital, and we hope that the new edifice will fulfil all requirements. Its site is where all tramways meet, and close at hand, if you happen to be kept there at any time, recreation is available. I have no doubt that, from the plans I have already seen, and the fact that your Council has some £4,000 to spend, and an unlimited amount of credit, before very long you will have a thoroughly up-to-date Dental Hospital. We certainly view with much regret the approaching end of the term of office as super-

intendent of your worthy President of the Society, Dr. W. Orr Gray. [Students: "We will have him back."] Of course, you cannot expect to have a gentleman like Dr. Gray looking after you for the whole of his life, particularly in the face of certain domestic alterations. The Dental Board, apart as it is from the College, recognises with great gratification the very satisfactory work that Dr. Gray has been doing in your College. (Cheers). We sincerely hope that a successor may be found who will carry on that good work. [Students: He is first favourite.] Well, you know, "Carbine" would not win the Melbourne Cup at the present day. He would be over-handicapped. So we hope and have every confidence in believing that the College will secure a successor who will carry on his work in a thoroughly satisfactory manner. I would again, on behalf of the Board, congratulate those students who were successful in the recent examinations. I would give a little word of advice here to the students, to do that little extra work which will enable them to become Bachelors of Dental Surgery; because I point out that unless all the larger requirements of the curriculum are complied with, your practice will be limited to Victoria. While on this point, I would say that, although you may not at present think so, the ultimate aim and end of education lies not in passing an examination, but in acquiring a certain amount of knowledge and experience. The passing of an examination does not necessarily always mean that that knowledge and experience have been gained, and certainly the failure to pass does not prove that they have not. But the examination is the only test available to us, and if students can suggest anything which would be more efficacious, we will consider it. In the meantime, examinations are a necessity: therefore, let not the unsuccessful think that they are not as experienced or as knowing as those who happen to have got through.

Presentation of Prizes.

The President presented the prizes gained during the session in the Australian College of Dentistry.

Fourth Year.—*Operative Dental Surgery.*—Presented by Messrs. Felton, Grimwade & Co.; value, £5 5s. Won by K. Russell and S. F. C. Bindley (equal).

Oral Surgery.—Presented by Mrs. Tovell; value, £2 2s. Won by K. Russell.

Dental Surgery—Presented by Messrs Meyer, Meltzer & Jackson. Won by K. Russell.

THIRD YEAR...—*General Surgery and Pathology.*—Presented by Messrs. Bosch, Barthell & Co.; value, £4 4s. Won by C. E. Allan and G. S. Braham (equal).

SECOND YEAR.—*Senior Anatomy and Dissections*—Presented by Messrs. H. C. Ford & Co.; value, £2 2s. Won by A. L. Beischer.

Operative Technique.—Presented by Dr. Wm. L. Aitken; value, £2 2s. Won by E. S. Gibson.

FIRST YEAR....—*Chemistry*—Presented by Mrs. Sowerby; value, £2 2s. Won by F. M. Bradshaw.

Dr. GRAY mentioned the difficulty he experienced in awarding the prize for Operative Dental Surgery. Eventually both competitors agreed to accept a division of the honour.

Mr. Ed. Stevens (a second-year student), recited in a most admirable manner, "Cassabianca," His excellent imitation of a "cork-armed elocutionist" convulsed his audience. As an encore he gave "The Geebung Polo Club."

Mr. B. P. THOMPSON, on rising to propose the toast of "The Lecturers and Demonstrators," said: Mr. Chairman and Gentlemen,—I feel I am quite safe in saying that our lecturers and demonstrators, whose healths I have now the honour and pleasure to toast, command nothing but the greatest praise from every student with whom they have had to deal, and that in no college in the world are they more in unison with the students than they are at ours. (Cheers.) I know that I am merely expressing the voice of every student present. (Hear, hear.) To pick out individual cases for comment would take me too long, as I should have to touch upon all. Therefore, I shall content myself with merely uttering some words of congratulation to those who specially demand it. I might say that Dr. Springthorpe has largely taken the wind out of my sails in this matter. First of all, I must congratulate Dr. Gray, our worthy President. Last year we offered him our felicitations on his entering into the wedded state, and now we have to repeat them on the advent of a future student who, if he turns out nearly as good as his father, will do well. Tempered with these congratulations, I must add a note of regret, in that we students are about to suffer the deprivation of Dr. Gray's valuable assistance. We feel that he has been more of a father—

if I may say so—to us than a superintendent, never having adopted anything in the nature of a patronising attitude towards us, but always being what he is—a true gentleman. Therefore, on behalf of all the students, I wish him great prosperity and success, and assure him that he carries with him our esteem and love. When he returns to Victoria, I trust he will not forget us. (Cheers.) I have also to offer our hearty congratulations to another lecturer on the occasion of his marriage, namely, Mr. A. W. Craig. Every student who has come into contact with that gentleman will agree with me when I say that he is a thoroughly "white man." Again, on behalf of the students, I wish him the greatest prosperity and happiness, as also to Mrs. Craig. I would have liked to welcome here to-night Dr. Mackenzie, who has undertaken the charge of the anatomy course this year, while at the same time we feel great regret for the absence of our good old friend, Dr. Buchanan, and trust that he will soon recover his good health again. (Applause.)

Mr. McMahon sang creditably "The Toreador Song," from "Carmen." As an encore he gave "Sally Horner."

Mr. A. W. Craig, in responding to the toast, said: Mr. Chairman, Mr. President, and Gentlemen,—There is a story of a leader-writer who apologised to his editor for having written a long leader, giving as his reason the fact that he had not had time to write a short one. The speakers to-night cannot say that they have made long speeches for the same reason, because your energetic Secretary gave us notice a week ago that we should in all probability be called upon to-night. In spite of the week's notice, I find great difficulty in responding to the toast in anything like adequate terms. When one "has the floor" in his own lecture-room, it is easy enough to talk, but it is quite another matter to respond to a toast such as that which has been so cordially, heartily, and sincerely proposed by Mr. Thompson, and in like manner honoured by you all, in terms which will adequately express the appreciation which the staff feel. Among the points of progress that have been made in the dental course during the last twelve months, reference has been made to the affiliation of your College with the University, and that has been truly recognised as a great step forward. (Applause.) The question has been raised as to

how far this affiliation is going to improve the prospects of dentistry as a profession. There is no question that the education and qualifications which are now required by our curriculum put the whole profession on a very different footing to that occupied in the past, when such education was not available. But I think it is possible to perhaps swing to the other extreme, and to believe that dentistry will become a profession simply because of the University recognition which it is now receiving. That is a mistake, because it seems to me that dentistry is an occupation distinguished from ordinary callings by the professional spirit engendered among its practitioners. I think that the lecturers and demonstrators are endeavouring to do all they can to inspire students who come under them with the true professional spirit, and I can say this quite honestly, that I think no body of lecturers and demonstrators could have more responsive students than we have in you. (Cheers.) I beg, then, to thank you very heartily for the reception given to this toast, and as the proposer of the toast has made a personal reference to me, I may, perhaps, be permitted to thank you for the mark of your esteem and regard which you gave to me during the year. I may say that no similar token gave me more pleasure than did that one, because, after all, I only come in contact with you as students one day in the week for a limited part of the year, and it is a source of very great gratification indeed to feel that I have personally your respect and regard. (Hear, hear.) I know that what you have given to me you have given also, and in the same measure, to all my colleagues on the staff: and on behalf of them and for myself, I have to thank you, gentlemen, for the way in which you have honoured this toast. (Cheers).

Mr. Godfrey Braham gave a recitation, "The Correct Card."

Mr. D. McL. Austin, in proposing the health of "the Medical Profession," said: Mr. President, Mr. Chairman, and Gentlemen, —It gives me great pleasure to submit this very important toast. I feel that, as dentists, we owe a very heavy debt to the members of that body—one, indeed, which we cannot repay. And we are under a specially deep obligation to Dr. Springthorpe, the President of the Dental Board, who is practically responsible for the curriculum, which must be good, seeing that the General Medical Council in England have recognised it. I am sure that

those members of the medical profession with whom we come in contact, especially the lecturers, possess our respect and esteem. I would particularly mention Dr. Stirling and Dr. Nihill, whom we students consider ourselves fortunate in possessing as teachers, and who are always ready and willing to give us any assistance in their power.

Mr. Horace E. Stevens then sang in his usual and excellent form, "The Postilion."

Dr. STIRLING, who was received with cheers, in responding, said: Mr. Chairman and Gentlemen,—At this late hour you will hardly expect me to give you much of an address, particularly as those gentlemen who have listened to me all this year are pretty tired of hearing my voice—at least, they showed signs of fatigue towards the end of the course in respect of the words of wisdom which I tried to instil into them on the subject of oral surgery. I have learned one pleasing fact here to-night, at any rate, and that is that we are going to have that rookery within which we have been working during the last few years abolished, and a proper school of dentistry—a school commensurate in some respects with the worth and value of the material within it—built in Spring Street. Still, I am sorry in one sense that we are leaving the classic—some one called them the aristocratic—precincts of Lonsdale Street. A new feature of the curriculum this year is that the fourth-year students have had an opportunity of observing some of the technique of a properly conducted surgical operation at the Melbourne Hospital. Now, antisepsis and asepsis are just as important matters in dental operations as they are in any other, and the dentist of the future will not behave like a gentleman who was once proceeding to draw some teeth for a lady—a relative of mine—at a hospital with which I was connected, and upon my suggesting that he should first boil his instruments, he looked at me in some surprise. He did not think those instruments should be subjected to such treatment. I would like also to say that, with regard to dentistry as a profession, as Sir John Madden has remarked, the world is still young, and for those of you who are youthful the ball is at your feet. I quite agree with him, and believe that there are all sorts of things to be discovered. The time will come when the stopping of teeth, that horrible abomination—the pulling of teeth, and that worse

abomination—the dental engine, will disappear; that a time will come when the discovery will be made of a serum which may be injected into the arm or elsewhere to prevent dental caries. (Oh, no! and laughter.) I thank you very much for the way in which you have received the toast, and I promise you that if I am still above the daisies, I will give you a longer and fuller course next year; in fact, I am already writing it out. Therefore I can promise you a very good and happy new year. (Cheers.)

Mr. W. Ross then sang "The Picador."

Mr. JOHN ILIFFE proposed the health of the graduates and the Society. He said: Mr. Chairman, Mr. President, and Gentlemen, —The toast I have great pleasure in proposing is a double-barrelled one. I feel you will all join in it most heartily, especially those of you who were successful at the recent examinations, for it is to your own noble selves. I do not intend at this late hour to give you any advice, but I heartily congratulate those graduates who have gained the L.D.S. diploma. To those who were not successful, I give my warmest sympathy. Dr. Springthorpe has already told you that you can learn a great deal from your failures: you have the opportunity of going up for the supplementary examination later on, at which I hope you will do better. As to the Society, I must congratulate you on your year's work, of which I have had cognisance from time to time. I hope you will have a much better muster roll next year; for I think the Society ought to embrace all the students of the College. If you stick to the Society and enter into its discussions with the same hearty spirit that you indulge in when talking over various matters in the operating rooms at the Hospital, much good will result to your Society and to yourselves, the benefit of which you will realise in after years. A rather important communication has been put into my hands by the Secretary of the Sports' Union of the Melbourne University, which I feel sure will be received with very great satisfaction by all you students. The Sports Union of the Melbourne University would be glad if the Dental Students' Society joined the Union, with a voice in Sports' Union matters equal to the other societies. In drafting the rules, special provision has been made for this, as well as for dental students joining the Sports' Union. The Boat Club would, the Secretary thinks, be

glad if a Dental Crew competed in the Schools Race for the John Grice Challenge Shield. And the Boat Club Committee would be glad to meet delegates from the Dental Students' Society to arrange for this, probably on the basis of a small affiliation fee to begin with —not necessarily to join for the whole year—at the fee of 35/-. It is specially provided that students, past and present, may join the Sports' Union. If a dental student attends the University lectures, he may join, even if not matriculated. In inter 'Varsity football rules with Adelaide, those proceeding to a degree, a diploma, or a license in dentistry are eligible by direct provisions. The Committee of the Sports' Union also desire that you will join in the jubilee of the University. I think this is a very important notice to make to you, and I believe it will satisfy many of the inquiries which have been made of late. I cannot resume my seat without coupling with this toast the name of your energetic Secretary. His compilation of the "College Notes," which appeared in the "Journal" during the session has been of material assistance to me. You are very fortunate in having such a hard-working and enthusiastic Secretary as Mr. Lyon. I ask you to charge your glasses, and drink to the toast of the "Graduates and the Dental Students' Society."

Mr. S. F. C. Bindley, in response, said: Mr. Chairman, Mr. Iliffe, and Gentlemen,—I desire to assure you that the graduates and the Society thoroughly appreciate all the good things which Mr. Iliffe has said regarding them. Since we have been connected with the Hospital, we have had a very good time, and we graduates shall one and all of us stick to the Society and the Hospital. On their behalf, I cordially thank you for the great kindness we have received during our course.

Song (Comic)—"I Burst Out Laughing"—by Mr. Norman Brooke, fairly convulsed the audience.

Sir John Madden then said: As a very fitting end to a good night's entertainment, I ask you to accord your thanks to the Chairman, he who has been your guide, philosopher and friend, both during the past years and also many others—Dr. Gray. I have gathered during the evening that he has managed, by his qualities not only as a teacher, but also as a man, to gain your affection. The only weakness about him is one he himself con-

fesses to—indeed, I sympathise most heartily with him for it. He says that in the examinations for the prizes here, he has found it exceedingly difficult to "divide them"—as they say on the Turf. They can win by a head, but here it seems more difficult to decide the winner even by a tooth. While he has been leading you to Bachelor degrees, he—together with your lecturer on Chemistry—has been leaving the degree of a bachelor. I can understand that with Mr. Craig it may have been a case of "chemical combination"; but I do not know what to say regarding Dr. Gray, unless it is a matter of "natural affinity." I would ask you to rise and drink Dr. Gray's health, with all honour.

Dr. W. Orr Gray, replying, said: Sir John Madden and Gentlemen,—I thank you all most cordially for the honour which you have done me. I do not deserve one-eighth of the good things said about me; but I can say that the gentleman who succeeds me, if he passes through a similar time to that which I have experienced during the past five years, [Students: You can have ten more if you like.], he will hold a jolly good position, and one that he ought to cling to as long as he can. I hope that you will get a man with whom you may all work in unison, a man you can respect and esteem. During my five years' term of office, I have made innumerable friends. Indeed, I look upon every man who has gone through the College as my personal friend; but I wish it to be understood that I am not severing my connection with the institution—I am simply relinquishing the post of superintendent. I thank you all very heartily for the kindness you have extended to me, and wish to say that as long as you have a Dental Students' Society, I will always be most closely associated with it and with you.

The gathering dispersed with the National Anthem, after one of the most enjoyable dinners given by the Dental Students' Society.

Sterilising Root Canals.—In from ten to fifteen minutes the electrolytic action of a constant galvanic current of from one to two milliampères suffices for sterilising completely root canals inaccessible to instrumentation. Injecting a 75 per cent. aqueous solution of common salt, thoroughly saturating the canal contents, gives a good conductor. If the anode or positive pole is made of platinum it will deposit chlorine, oxygen and hydrochloric acid, these ions promising a decided anti-bacterial effect.—*Dr. Kurt Hoffendahl, "Dental Cosmos."*

THE CONSTRUCTION OF AN ARTIFICIAL DENTURE UPON A METAL BASE.

BY L. P. HASKELL, D.D.S., CHICAGO, ILL.

Written specially for this Journal.

If apology is required for the following paper, it is readily found in the almost universally expressed opinion that too little attention is paid to the prosthetic side of our work during College days. What is needed in the teaching of the construction of dentures in metal plates, or in dental mechanics generally, is thoroughness in attention to details, and the simplifying of methods. Many dentists have so little confidence in their ability to successfully construct a denture on gold or aluminium that they abandon the attempt, and resort to rubber dentures, to the detriment of their patients.

The patient should be informed of a most objectionable feature of the rubber denture, which is found in the long and well-established fact that rubber, being a non-conductor of heat, causes a retention of undue heat under the plate, which results in excessive absorption of the alveolar process, causing a flat, ridgeless jaw in 80 per cent. of mouths. Where this condition exists, better results in fit and adhesion can be obtained by the use of swaged metal plates, the process of which it is my purpose to describe.

First, I insist on a plaster impression being taken high up over the cuspid eminence. This I brush over with a solution of shellac, using it thin, so as not to produce a film; then I soap this freely, and, before pouring the plaster, rinse out the excess of soap. When the plaster has set, remove the tray, and cut away the surface of the impression to the model, and carefully chip away the remaining plaster from the margins of the impression. The model should be so shaped that it will readily drop from the sand mould—it should never be lifted out. To do this, heap some plaster upon a glass surface, placing the model upon it, pressing down until it will be about one inch thick, then with a spatula build up the sides. When the plaster has set, trim and shellac.

Now comes an important feature of the process. I make no use of vacuum cavities, and why? Every dentist knows that the palate

is hard, but so few seem to realise that it is the only portion of the upper jaw which seldom or never changes, whereas the alveolar ridge is subject to change, under rubber extensively, and more or less under metal, but little as compared with rubber. If no provision is made for this change, it is only a question of time when the plate is resting and rocking on the centre of the hard palate. If the vacuum cavity is used, the anterior and posterior margins rest and rock over the centre. The remedy is to place what I call a "relief" over the hard surface, viz.: A thin film of wax (using the thin sheet wax), and extending it from nearly the top of the alveolar ridge to within one quarter-inch of the posterior margin of the plate. The plate should be worn farther back than is usually made by dentists, and, with few exceptions, can be so worn with comfort. The margin of the wax should be thin with the model and shellaced.

In casting metal dies, I prefer to use oiled sand, as it is always ready for use, and can be used many times without re-oiling, using lard or whale oil for this purpose.* Use a moulding flask large enough to pack the sand readily. Have one made of sheet iron, three inches deep and five inches in diameter. For packing use a potato masher, using the handle around the sides and the large end on top.

For the die I use exclusively Babbitt metal, having introduced this metal into the dental laboratory more than fifty years ago. After having used zinc, type metal and tin, I consider this is the only metal having all the five requisites for a dental die, which are non-shrinkage; hard, so as not to batter; tough, so as not to break; having a smooth surface; and melting at a low temperature.

But there must be a proper formula used, which is as follows:—Copper, 1 part; antimony, 2 parts; tin, 8 parts. These should be put together in a crucible at a foundry, and melted in the order named. In using this metal, do not over-heat so as to oxidise the tin. Pure lead cannot be poured upon Babbitt metal without the danger of the two metals uniting. To avoid this, reduce the melting point of the lead by adding tin, in the proportion of one part tin to five parts of lead. This should not be poured hot as it comes from the heater, but stirred until it begins to crystallise

* The "Chase" oiled sand is all right, and can be purchased at the Dental Depots.

on the sides, then pour quickly, having previously coated the die with prepared chalk, and placing it in the casting or moulding flask, and, with a spatula, packing the sand all around the sides to about where the margin of the plate would come, and then placing over it a smaller ring or flask.

For making patterns for a gold plate, I use the sheet lead forming a tea-chest lining (Japanese). I prefer 20 carat gold, American gauge No. 28, for a full upper denture. The dies should be slightly oiled to prevent the base metals adhering to the plate. The horn mallet with the long pointed end cut off to where it is ¾-inch in diameter, is used at first over the alveolar ridge and tuberosities, then in centre of plate. Do not hesitate at this time to cut a slit in front of plate to the top of the ridge; lap, and when swaged, solder. This simplifies the swaging, and doubles the strength at the weakest point. The plate needs annealing before swaging, and also frequently when partly swaged; plunging it into sulphuric acid each time while hot. Before annealing a second time, wipe off any traces of base metal there may be. To solder, place the solder upon the inside, and apply heat upon the outside.

All plates should be worn as high as possible all around the gum margins, but always higher over the cuspid teeth than elsewhere. To know where to locate the high points, use a pair of compasses, and measure the teeth which you are to use, from the median line to centre of cuspid, and transfer the measurement to the die, and from that to the plate, and trim accordingly, dropping suddenly back of the high point to give free play to the muscles. Try the plate in the mouth, and see if the fit is correct, and if it needs any trimming. Wet the palatal surface, and place in the mouth, then with the finger use a pumping motion, and watch for air bubbles at the posterior margin; if any appear, place the plate on a plaster model, and, with a broad, flat burnisher, burnish closer where the bubbles appear, and if necessary scrape the plaster model a little at that place. Take the bite with a roll of wax on the plate, telling the patient to place the tongue as far back as possible in the palate, and then to close the jaw, and, on removing from the mouth, place the whole in the articulator.

To wire the plate, use 18 gauge gold wire, and, beginning on the right side, after annealing fit the wire for about one inch along the buccal margin, and hold it in place with two clamps made of common iron wire about 16 gauge, by flattening the ends, and bend with the pliers so as to form a loop. Solder but a short distance, and then, adjusting with the pliers an inch and a half at a time with the plate on the model, using one clamp as far as fitted, and so on until completed, using only solder enough to attach the wire; clean in acid, and file the margin to a finish. To attach the rubber, solder three loops on the ridge—one on each side and one in front.

The teeth should always be arranged by the mouth, as it is impossible to tell how they will look, or whether the articulation is correct except by following this method. Not only this, the patient should be allowed to see them in the mouth while mounted on the wax, so as to be sure they are in every way satisfactory.

I believe there are more failures from faulty articulation than from any other cause. Never allow the six anterior teeth to come in contact. Be sure the molars and bicuspids on both sides occlude exactly. If a second or third molar is crowded forward so as to be at an angle, do not allow the upper teeth to meet it, as sooner or later the plate will be crowded forward. The pressure should be on the bicuspids and first molar.

In "waxing up," make the contour of gum most prominent over cuspids, and usually thin directly in front, and finish up with a slight festoon of gum over the teeth.

In arranging lower teeth in a full set, begin with the second bicuspids, so as to secure correct closure of masticating surfaces. Then, if necessary, select narrower incisor fronts, as they are often too wide for the uppers.

The swaging of an aluminium plate differs from the swaging of gold. I use the soft aluminium, which needs no annealing, of No. 20 gauge. This alloy is so soft that in an under cut case, the plate is apt to tear where that portion of the counter die passes the ridge. To prevent this, scrape away freely a portion of counter die, which closes into the die. On the palatal surface lay several folds of cloth to mallett on, and for a final swage lay six or more folds of wet paper over the palatal surface.

The only sure method of attaching rubber to the aluminium is with the loop punch, making a row of eight loops near the margin and eight over the ridge. Aluminium makes an excellent plate, far preferable to rubber. In ten years' use of it I have never seen a case affected by the secretions of the mouth. It is too soft to use for partial dentures, as it is very liable to be bent out of shape, either by the patient or accidentally.

NEW SOUTH WALES.

DENTAL BOARD OF NEW SOUTH WALES.

The monthly meeting of the Board was held on Monday, November 27th, at Board Room, 7 Richmond Terrace, Domain, Sydney.

The President (Mr. C. G. Hodgson), took the chair at 5 o'clock p.m., there being also present Dr. Palmer, Dr. Peach, Dr. Kirkland, Messrs. C. Hall and C. C. Marshall.

Mr. G. Norton Russell sent an apology, being still too ill to attend.

Minutes of previous meeting were read and confirmed. Bank Pass Book examined and found correct, and accounts passed for payment.

The following applications for registration were dealt with:—Thomas Gerald King, Tenterfield; William Nelson Last, Strathfield; Edgar Sydney Warr, Sydney; Thomas Nestor, Tumut; Walter Oscar Paul, Sydney; William James T. Storey, Cootamundra; Percy Durston Jones, Sydney. The following were registered:—Thomas Gerald King, Tenterfield; Edgar Sydney Warr, Sydney; Thomas Nestor, Tumut; Walter Oscar Paul, Sydney; William James T. Storey, Cootamundra.

The sub-committee's report re alteration of Syllabus was laid before members, and on the motion of Dr. Peach, seconded by Dr. Palmer, it was resolved, "That alteration of Syllabus stand over until April meeting." It was decided to do this, so as to prevent

any misunderstanding to those students who are to be examined in April.

The new subject—"Inorganic Chemistry"—is to be added to Syllabus for apprentices who are apprenticed after January 1st, 1906.

On the motion of Dr. Peach, seconded by Dr. Palmer, it was resolved: "That 'Inorganic Chemistry' be an extra subject to be added to Syllabus for examination from January 1st, 1906, and be gazetted."

A letter was read from Pharmaceutical Society, re the addition of a Clause in Amended Dentists' Bill, to protect the rights of existing chemists practising dentistry.

On the motion of Dr. Palmer, seconded by Mr. Marshall, it was resolved: "That the letter be handed to Dr. Arthur, who has charge of the Bill in the Lower House, and that the Pharmaceutical Society be notified of same."

Mr. Hall handed in a list of candidates' work, to be certified to under the Syllabus for students sitting for examination to be held in April next. After discussion, on the motion of Mr. Hall, seconded by Dr. Peach, it was resolved: "That a list as amended be accepted and printed."

It was resolved, on the motion of Mr. Marshall, seconded by Dr. Peach, "That in future the monthly meetings of the Board be held at 8 o'clock p.m., as before."

HORACE TAYLOR, Registrar.

WESTERN AUSTRALIA.

DENTAL BOARD OF WESTERN AUSTRALIA.

The 129th monthly meeting of the Dental Board was held on Friday, 1st December, at 5.15 p.m., in Furnival Chambers, St. George's Terrace, Perth.

There were present Dr. T. G. Davy (in the chair), Dr. F. M. Wilkinson, and Messrs. A. J. Watts and A. J. Wright.

The minutes of the previous meeting were read and confirmed.

An application for registration was received from Alfred Henry Porter, Doctor of Dental Surgery of the University of Pennsylvania. Consideration of the application was deferred, pending payment of the prescribed fees.

Applications to undergo the preliminary examination for apprentices were received from Messrs. B. Herman and A. E. Johns, and granted.

It was decided to again approach the Attorney-General with a view to obtaining exemption for dentists from serving on juries.

Correspondence was received from the Colonial Secretary, Ralph Potts, A. T. Mills, and the Dental Board of South Australia.

The bank certificate and the Board's cash book were laid on the table, and accounts passed for payment.

FRANCIS M. SYME, Registrar.

NOTICES.

Contributors of "Papers" to the "Australian Journal of Dentistry" can have copies reprinted in pamphlet form at a small cost by notifying the Manager before publication.

Please mention the "Australian Journal of Dentistry" when acting upon information derived from its advertisement columns.

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ANONYMOUS communications cannot receive attention.

All Communications intended for publication in the "Journal" should be addressed to the Editor at 177 Collins Street, Melbourne, not alter than the 21st of each month.

All contributions must be written on one side of the paper only, and must be authenticated by the writer's name and address, not necessarily for publication, but as a guarantee of good faith.

BUSINESS communications to be addressed to the Manager, at the Office, Australian College of Dentistry, and Melbourne Dental Hospital, 191 Lonsdale Street, Melbourne.

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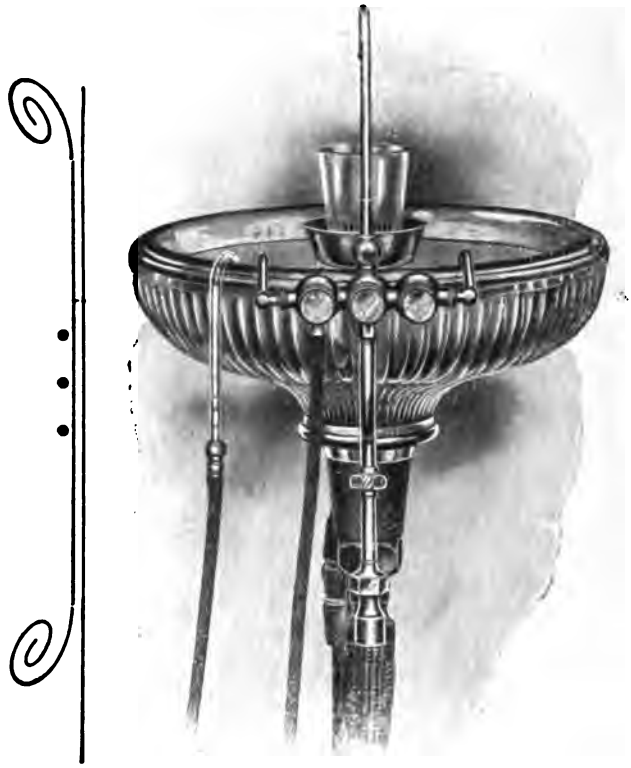

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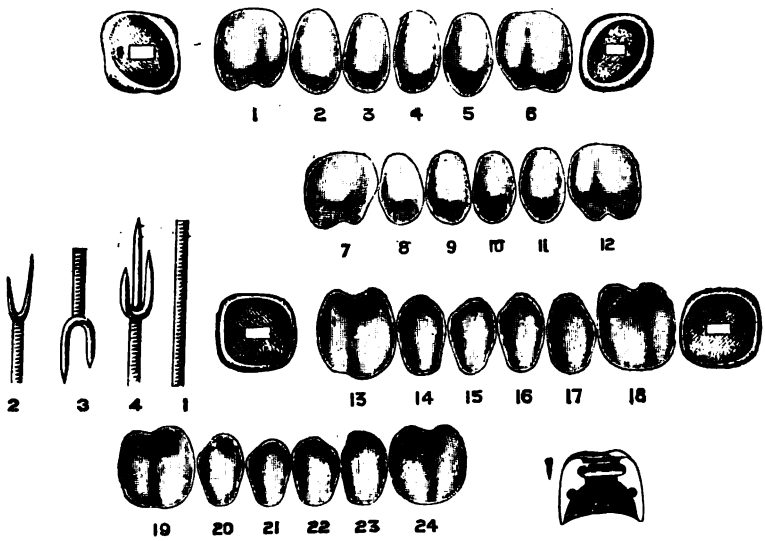
Dr. J. Leon Williams' Porcelain Crowns



It is claimed for these Crowns that in shape they more nearly conform to the natural teeth than any other crown on the market. Having been modelled from natural teeth, as will be seen from the illustrations, the curve of the neck is exactly in line with the curve of the natural root to be crowned, consequently a more perfect fit is insured. Four forms of pins as illustrated are used in fitting these crowns. No. 1 for bicuspids having a single well defined pulp canal, No. 2 a fork pin for bicuspids with a divided canal, No. 3 for lower molars, and No. 4 for upper molars which have a long branch for the large canal of the palatine root, and two short branches or prongs for the buccal roots. The method of setting these crowns is as follows:—

In crowning a lower molar, after the canals have been reamed out and the roots ground down level with the gum, the pulp chamber should be enlarged and bevelled outward to the gum-margin. The deep portion of the cavity thus made is under-cut with suitable burs. The post No. 3 is now cemented with oxyphosphate into the canals. No more cement should be used than is necessary to just fill the canals. A quick-setting amalgam is then mixed, and the cavity of the enlarged pulp-chamber filled right up to the gum margin. Now make another mix of amalgam and fill the depression and the little pits on the under side of the crown, and press it to place. Just the right amount of amalgam must be used to make a perfect joint with the filling in the pulp-chamber without raising the tooth, which has previously been accurately fitted. If the position is just right, force the tooth well home, and do not move it again, but quickly fill the undercut cavity on crown of tooth around the square post with amalgan. The square post and the little pits filled with amalgam will prevent loosening of the tooth from rotation, which sometimes occurs with the ordinary crown.

The crowns are made for both the upper and the lower bicuspids, and for first upper and lower molars only.

PRICE - - - 1/- EACH.

Pins in Platina, No. 1	... ...	3/- each.	Platinoid, 6d. each.
" " " 2 and 3	...	3/6 "	" 2/- "
" " " 4	... ...	4/6 "	" 2/6 "

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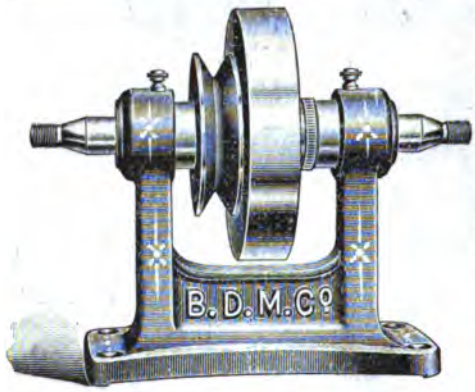

To give the greatest amount of service with the least wear. They have double cone bearings of steel, readily adjustable; a straight spindle, ground true and splined to carry the cones and balance wheel; cone bearings for chucks, insuring a true fit to spindle, and the bearings are so constructed that they form their own dust and grit protectors.

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JUNE, 1905.

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